KINNELOA IRRIGATION DISTRICT

Regular Meeting – Board of Directors
1999 Kinclair Drive, Pasadena, CA 91107
Tuesday, September 24, 2024
3:00 P.M.

AGENDA

This meeting will be conducted at the District office in accordance with the Brown Act and AB 2449. Public comment may be made in person or submitted via email to gm@kidwater.info prior to the meeting, any information submitted will become part of the official record. The public may participate at the office or via computer or telephone using the following information:
https://us02web.zoom.us/j/85061795151?pwd=QURaWGV5Lzg3dmEvcGx1UjI6akRHdz09
Meeting ID: 850 6179 5151
Passcode: 156331
Telephone: 669 900 9128

1. **CALL TO ORDER –** 3:00 P.M.
   - **a.** Declaration of a quorum
   - **b.** Review of agenda

2. **PUBLIC COMMENT –** Comments from the Public regarding items on the Agenda or other items within the jurisdiction of the District
   In compliance with the Brown Act, the Board cannot discuss or act on items not on the Agenda. However, Board Members or District Staff may acknowledge Public comments, briefly respond to statements or questions posed by the Public, ask a question for clarification, or request Staff to place item on a future Agenda (Government Code section §54954.2)

3. **REVIEW OF MINUTES –** August 27, 2024, Special Meeting
   Recommended Action: Review and approve motion to file.

4. **REVIEW OF MINUTES –** August 27, 2024, Regular Meeting
   Recommended Action: Review and approve motion to file.

5. **REVIEW OF FINANCIAL REPORTS –** August 2024
   Recommended Action: Review and approve motion to file.

6. **INFORMATION ITEMS (items with * indicate that supporting documents are included)**
   - **a.** August 2024 Water Audit*
   - **b.** Water Quality Testing Report – August 2024*
   - **c.** Production and Sales Report for Water Year Ending June 2024*
   - **d.** Fluoride Blending Permit Application Status
   - **e.** GIS Field Data Collection/Lead Service Line Inventory
   - **f.** Summer/Fall Customer Newsletter

7. **AD HOC PERSONNEL COMMITTEE** – Information item presented by the Committee Chair. Summarize Committee activities.

8. **WATER SYSTEM EVALUATION AND CAPITAL IMPROVEMENT PLAN**
   Recommended Action: Review Final Water System Evaluation and Capital Improvement Plan dated September 19, 2024. Adopt 10-Year Capital Improvement Plan as presented.

9. **AD HOC FINANCE COMMITTEE REPORT** – Information item presented by the Committee Chair. Summarize Committee activities.

10. **PROPOSED WATER RATED FOR CALENDAR YEARS 2025-2029**
Recommended Action: Review 2024 Water Rate Study prepared by Water Resources Economics and authorize a public hearing for the adoption of the recommended rates.

11. **GENERAL MANAGERS REPORT –** Information item presented by the General Manager.
General Manager to summarize the report and respond to questions.

12. **CLOSED SESSION –** Receive advice from Legal Counsel: Pending or threatened litigation (Government Code Section 54956.9(a)

13. **CLOSED SESSION –** Evaluate matters related to critical infrastructure security.

14. **DIRECTOR REPORTS AND/OR COMMENTS –**
In accordance with Government Code §54954.2 Directors may make brief announcements or brief reports on their own activities. Directors may ask a question for clarification, provide a reference to staff or other resources for information, request staff to report back to the Directors at a subsequent meeting, or act to direct staff to place a matter of business on a future agenda.

15. **CALENDAR –** Upcoming regular meetings: October 22, 2024; November 26, 2024; December 24, 2024

16. **ADJOURNMENT**

In compliance with the Americans with Disabilities Act, if you are a disabled person and need a disability-related modification or accommodation to participate in this meeting, please contact the District office 48 hours prior to the meeting at 626-797-6295. Each item on the agenda, no matter how described, shall be deemed to include any appropriate motion, whether to adopt a minute motion, resolution, payment of any bill, approval of any matter or action, or any other action. Material related to an item on this agenda submitted after distribution of the agenda packet is available for public review at the District office or online at the District's website https://kinneloairrigationdistrict.info.

KINNELOA IRRIGATION DISTRICT

Special Meeting – Board of Directors
1999 Kinclair Drive, Pasadena, CA 91107
Tuesday, August 27, 2024, 2:00 P.M.

MINUTES

The meeting was conducted in the District Board Room and by teleconference in accordance with the Brown Act and AB 2449. The District offered the public the option to attend the meeting by telephone, videoconference or in-person as stated in the agenda.

DIRECTORS PRESENT: In-Person: Stephen Brown, Gordon Johnson, Timothy Eldridge, William Opel, John Feliton

DIRECTORS ABSENT: None

STAFF PRESENT: In-Person: Tom Majich-General Manager (GM),

PUBLIC PRESENT: none

1. **CALL TO ORDER:**
   Chairman Brown called the meeting to order at 2:00 P.M. and took roll call. A quorum of Board Members was present and reviewed the agenda.

2. **PUBLIC COMMENT:**
   None

3. **KINNELOA IRRIGATION DRAFT MASTER PLAN WORKSHOP:**
   The Draft Water System Evaluation and Capital Improvement Plan dated August 27, 2024, was reviewed and discussed. Appendix A to the plan is the draft Production and Sales Report for Watermaster Year 2023-2024, that report will be revised and finalized following publication of the Raymond Basin Management Board annual report for the watermaster year 2023-2024. Various comments were made, and questions were answered. The General Manager requested that any further comments, questions or suggestion be submitted to the GM via email by Friday, September 13, 2024, so that a final Plan can be presented to the Board at its Regular Meeting on September 24, 2024.

4. **DIRECTOR REPORTS AND/OR COMMENTS:**
   None

5. **CALENDAR:** Upcoming regular meetings: August 27, 2024; September 24, 2024; October 22, 2024

6. **ADJOURNMENT:**

   Chairman Brown adjourned the meeting at 3:17 P.M.
   Prepared and submitted by,

   Tom Majich, General Manager

KINNELOA IRRIGATION DISTRICT

Regular Meeting – Board of Directors
1999 Kinclair Drive, Pasadena, CA 91107
Tuesday, August 27, 2024, 3:00 P.M.

MINUTES

The meeting was conducted in the District Board Room and by teleconference in accordance with the Brown Act and AB 2449. The District offered the public the option to attend the meeting by telephone, videoconference or in-person as stated in the agenda.

DIRECTORS PRESENT: In-Person: Stephen Brown, Gordon Johnson, Timothy Eldridge, William Opel, John Feliton

DIRECTORS ABSENT: none

STAFF PRESENT: In-Person: Tom Majich-General Manager (GM), Chris Burt

PUBLIC PRESENT: none

1. **CALL TO ORDER:**
   Chairman Brown called the meeting to order at 3:30 P.M. and took roll call. A quorum of Board Members was present and reviewed the agenda.

2. **PUBLIC COMMENT:**
   none

3. **REVIEW OF MINUTES:**
   Subject to a noted revision in Item #3, Director Feliton motioned to approve the **July 23, 2024, Special Meeting** Minutes for filing and was seconded by Director Johnson. It was motioned/seconded/carried unanimously – (Feliton / Johnson – 5 Aye / 0 Nay / 0 Abstain / 0 Absent)

4. **REVIEW OF MINUTES:**
   Subject to a noted revision in Items 1, 2, 5h and 5j, Director Eldridge motioned to approve the **July 23, 2024, Regular Meeting** Minutes for filing and was seconded by Director Opel. It was motioned/seconded/carried unanimously – (Eldridge / Opel – 5 Aye / 0 Nay / 0 Abstain / 0 Absent)

5. **REVIEW OF MINUTES:**
   Director Eldridge motioned to approve the **July 30, 2024, Special Meeting** Minutes for filing and was seconded by Director Feliton. It was motioned/seconded/carried unanimously – (Eldridge / Feliton – 5 Aye / 0 Nay / 0 Abstain / 0 Absent)

6. **REVIEW OF FINANCIAL REPORTS:**
   The General Manager presented the July 2024 financial reports and a year-end budget forecast. Director Johnson motioned to approve the reports for filing and was seconded by Director Eldridge. It was motioned/seconded/carried unanimously – (Johnson / Eldridge – 5 Aye / 0 Nay /0 Abstain/0 Absent)

7. INFORMATION ITEMS:

a. The General Manager shared a water audit for the period of 6/25/24-7/25/24 indicating that 12.7% of water produced in that period was non-revenue generating while the calendar year to date loss is 14.91%.

b. The General Manager provided a Water Quality Testing Report for July 2024

c. The GM reviewed the correspondence received from the State Water Resources Control Board, Division of Drinking Water dated 8/20/24. The General Manager is working on a response to be submitted to DDW by the next Regular Board Meeting.

d. The GM noted that that GIS field collection effort is ongoing with District staff and that the Lead Service Line Inventory will be completed by the deadline of 10/16/24.

f. The GM proposed that the fall newsletter be sent out immediately after Labor Day. The GM will work with Director Brown to develop the newsletter content.

8. AD HOC PERSONNEL COMMITTEE:

The Ad Hoc Personnel Committee met with the General Manager to review and prepare agenda items 9 and 10. An updated organizational chart, approved compensation ranges and employee job descriptions will be presented to the Board at its September Regular meeting for review and adoption

9. ADOPTION OF CalPERS 457 PLAN:

After reviewing the plan outline and draft agreement, Director Opel motioned to approve Resolution 2024-08-27-1 to adopt the CalPERS 457 Plan for the benefit of the Kinneloa Irrigation District employees and was seconded by Director Feliton. It was motioned/seconded/carried unanimously – (Opel / Feliton – 5 Aye / 0 Nay / 0 Abstain / 0 Absent)

10. ADOPTION OF EMPLOYEE POLICIES AND PROCEDURES VERSION 8:

The General Manager presented Revision 8 dated August 27, 2024, of the Kinneloa Irrigation District Policies and Procedures Manual. The following final revisions were discussed at the meeting:

Section I.E.1. – Revise definition of full time-regular employee to a minimum 32 hours per week
Section II.A – add back the language "The General Manager is assigned primary responsibility for implementing the IIPP.
Section V.E.2. – add that Floating Holiday Time may only be taken in 8-hour increments.

Subject to the three noted revisions, Director Eldridge motioned to approve Resolution 2024-08-7-2 adopting Revision 8 of the Policies and Procedures Manual and was seconded by Director Feliton. It was motioned/seconded/carried unanimously – (Eldridge / Feliton – 5 Aye / 0 Nay / 0 Abstain / 0 Absent)

11. AD HOC MASTER PLAN COMMITTEE REPORT:

The Draft Water System Evaluation and Capital Improvement Plan was presented to the Board at its Special Meeting of August 27, 2024. The Ad Hoc Master Plan Committee is now dissolved.

12. AD HOC FINANCE COMMITTEE FORMATION:

The Draft Water System Evaluation and Capital Improvement Plan was presented to the Board at its Special Meeting of August 27, 2024. The Ad Hoc Master Plan Committee is now dissolved.

13. GENERAL MANAGER'S REPORT:

The General Manager presented the monthly report on District activities, water supply and production. A year-to-date summary of the Watermaster Year ending June 2025 was reviewed.

14. DIRECTOR REPORTS AND/OR COMMENTS:

Director Feliton noted that a vacant property in his Division is in escrow to be sold and inquired about District protocol for providing new water service to properties being developed.

15. CALENDAR: Upcoming regular meetings: September 24, 2024; October 22, 2024; November 26, 2024.

16. ADJOURNMENT:

Chairman Brown adjourned the meeting at 5:20 P.M.

Prepared and submitted by,

Tom Majich, General Manager

Kinneloa Irrigation District
Income Statement Compared with Budget for the Eight Months Ending August 31, 2024

		Current Month Actual	Current Month Budget	Current Month Variance	Year to Date Actual	Year to Date Budget	Year to Date Variance	Annual Budget
Revenues								
4000	Water Sales	201,734.36	212,249.75	(10,515.39)	1,158,598.20	1,400,998.00	(242,399.80)	2,126,997.00
4020	Service Charges	319.87	0.00	319.87	4,566.37	0.00	4,566.37	0.00
4035	Interest-Reserve Fund	3,723.11	3,271.42	451.69	27,008.31	26,171.36	836.95	39,257.00
4036	Unrealized Gain(Loss)-CalTRU	0.00	0.00	0.00	(3,205.96)	0.00	(3,205.96)	0.00
4070	Misc. Income	0.00	0.00	0.00	6,239.78	0.00	6,239.78	0.00
	Total Revenues	**205,777.34**	**215,521.17**	**(9,743.83)**	**1,193,206.70**	**1,427,169.36**	**(233,962.66)**	**2,166,254.00**
Expenses								
5005	Electricity	17,711.07	19,238.25	(1,527.18)	126,069.01	125,906.00	163.01	190,859.00
5010	Maintenance Supplies	2,724.50	2,083.33	641.17	17,482.33	16,666.64	815.69	25,000.00
5012	Safety Equipment	0.00	166.67	(166.67)	1,128.84	1,333.36	(204.52)	2,000.00
5015	Operations & Maintenance Labo	21,630.73	22,916.67	(1,285.94)	169,490.42	183,333.36	(13,842.94)	275,000.00
5016	Operations & Maintenance OT	1,587.84	1,750.00	(162.16)	17,335.87	14,000.00	3,335.87	21,000.00
5020	Standby Compensation	1,264.05	915.00	349.05	7,343.01	7,320.00	23.01	10,980.00
5022	Training/Certification	0.00	133.33	(133.33)	370.00	1,066.64	(696.64)	1,600.00
5025	Water Treatment/Analysis	1,863.48	1,000.00	863.48	8,720.40	8,000.00	720.40	12,000.00
5026	Water Treatment/Supplies	1,105.17	833.33	271.84	6,574.63	6,666.64	(92.01)	10,000.00
5030	Maintenance Contractors	6,072.45	10,666.67	(4,594.22)	90,516.56	85,333.36	5,183.20	128,000.00
5031	SCADA O&M	854.88	1,250.00	(395.12)	6,791.37	10,000.00	(3,208.63)	15,000.00
5033	Unplanned & Emergency Repair	0.00	0.00	0.00	47,883.37	0.00	47,883.37	0.00
5034	Equipment Maintenance	967.00	625.00	342.00	14,825.74	5,000.00	9,825.74	7,500.00
5035	Vehicle Maintenance	133.18	1,041.67	(908.49)	3,153.50	8,333.36	(5,179.86)	12,500.00
5036	Fuel - All Equipment	841.40	1,666.67	(825.27)	9,166.63	13,333.36	(4,166.73)	20,000.00
5040	Equipment Rental	0.00	0.00	0.00	0.00	0.00	0.00	500.00
5045	Insurance-Workers Compensatio	0.00	0.00	0.00	8,294.55	8,000.00	294.55	16,000.00
5046	Insurance-Liability	3,341.66	2,672.08	669.58	27,597.10	21,376.64	6,220.46	32,065.00
5048	Insurance-Property	398.28	395.50	2.78	3,083.98	3,164.00	(80.02)	4,746.00
5049	Insurance-Medical	7,499.48	6,250.00	1,249.48	49,428.47	50,000.00	(571.53)	75,000.00
6000	Engineering Services	8,648.75	9,583.33	(934.58)	59,992.06	76,666.64	(16,674.58)	115,000.00
6005	Watermaster Services	1,520.33	3,899.58	(2,379.25)	10,903.12	31,196.64	(20,293.52)	46,795.00
6015	Administrative Salary	14,737.50	14,935.00	(197.50)	117,900.00	119,480.00	(1,580.00)	179,220.00
6017	Administrative Travel	0.00	150.00	(150.00)	274.12	1,200.00	(925.88)	1,800.00
6020	Board of Directors Comp.	1,200.00	750.00	450.00	9,150.00	6,000.00	3,150.00	9,000.00
6021	Administrative & Board Expens	0.00	166.67	(166.67)	0.00	1,333.36	(1,333.36)	2,000.00
6022	Board of Directors Election	566.57	0.00	566.57	33,935.20	0.00	33,935.20	0.00
6024	Customer/Public Information	249.00	1,416.67	(1,167.67)	5,562.94	11,333.36	(5,770.42)	17,000.00
6025	CalPERS - KID	4,384.87	3,916.67	468.20	33,896.04	31,333.36	2,562.68	47,000.00
6030	Social Security - KID	3,375.81	3,250.00	125.81	27,631.81	26,000.00	1,631.81	39,000.00
6031	Medicare - KID	789.49	791.67	(2.18)	6,462.36	6,333.36	129.00	9,500.00
6035	Office/Computer Supplies	451.14	583.33	(132.19)	4,448.90	4,666.64	(217.74)	7,000.00
6036	Postage/Delivery	466.34	416.67	49.67	3,294.38	3,333.36	(38.98)	5,000.00
6040	Professional Dues	380.41	1,659.17	(1,278.76)	17,950.24	13,273.36	4,676.88	19,910.00
6045	Legal Services	0.00	500.00	(500.00)	4,640.00	4,000.00	640.00	6,000.00

Kinneloa Irrigation District
Income Statement Compared with Budget for the Eight Months Ending August 31, 2024

		Current Month Actual	Current Month Budget	Current Month Variance	Year to Date Actual	Year to Date Budget	Year to Date Variance	Annual Budget
6050	Phone/Internet/Wireless	683.26	666.67	16.59	4,933.94	5,333.36	(399.42)	8,000.00
6059	Computer/Software Maintenanc	367.93	1,166.17	(798.24)	6,889.85	9,329.36	(2,439.51)	13,994.00
6061	Office Equipment Maintenance	0.00	208.33	(208.33)	0.00	1,666.64	(1,666.64)	2,500.00
6065	Accounting Services	700.00	0.00	700.00	7,600.00	7,700.00	(100.00)	7,700.00
6070	Office & Accounting Labor	15,159.48	14,375.00	784.48	128,443.90	115,000.00	13,443.90	172,500.00
6071	Office & Accounting Bonus	0.00	0.00	0.00	199.36	0.00	199.36	0.00
6075	Professional Services	8,642.19	5,416.67	3,225.52	37,839.60	43,333.36	(5,493.76)	65,000.00
6076	Contract Services	2,100.00	1,855.00	245.00	19,615.00	14,840.00	4,775.00	22,260.00
6080	FMWD Administrative Fees	1,088.01	1,099.42	(11.41)	8,585.35	8,795.36	(210.01)	13,193.00
6081	Permits/Fees	2,616.38	1,250.00	1,366.38	9,041.78	10,000.00	(958.22)	15,000.00
6086	Sales/Use Tax	0.00	41.67	(41.67)	0.00	333.36	(333.36)	500.00
6088	Interest Expense	0.00	0.00	0.00	20,521.55	20,872.00	(350.45)	40,306.00
6120	Bank Service Charges	2,711.18	1,000.00	1,711.18	14,230.79	8,000.00	6,230.79	12,000.00
	Total Expenses	**138,833.81**	**142,701.86**	**(3,868.05)**	**1,209,198.07**	**1,150,186.88**	**59,011.19**	**1,736,928.00**
	Net Income	**66,943.53**	**72,819.31**	**(5,875.78)**	**(15,991.37)**	**276,982.48**	**(292,973.85)**	**429,326.00**
Other Expenditures								
1504	Water Mains/Valves	0.00	0.00	0.00	0.00	0.00	0.00	125,000.00
1505	Water Tunnels	1,078.13	1,100.00	(21.87)	1,078.13	1,100.00	(21.87)	10,000.00
1512	Water Meters	0.00	0.00	0.00	26,370.93	20,000.00	6,370.93	20,000.00
1513	Electrical System	0.00	0.00	0.00	8,950.00	9,000.00	(50.00)	25,000.00
1514	Computer/Office Equipment	665.02	700.00	(34.98)	1,779.79	1,900.00	(120.21)	2,500.00
1515	Vehicles/Portable Equipment	0.00	0.00	0.00	(439.67)	0.00	(439.67)	0.00
1516	Water Company Facilities	0.00	0.00	0.00	35,215.00	0.00	35,215.00	0.00
1517	KID Office	0.00	0.00	0.00	0.00	0.00	0.00	20,000.00
1527	SCADA Equipment	2,709.79	2,800.00	(90.21)	3,628.84	3,800.00	(171.16)	10,000.00
1530	Tools	0.00	0.00	0.00	227.29	300.00	(72.71)	3,000.00
2400	Installment Purchase Agreement	0.00	0.00	0.00	79,579.43	79,229.00	350.43	159,896.00
	Total Other Expenditures	**4,452.94**	**4,600.00**	**(147.06)**	**156,389.74**	**115,329.00**	**41,060.74**	**375,396.00**
	Total Increase or (Drawdown)	**62,490.59**	**68,219.31**	**(5,728.72)**	**(172,381.11)**	**161,653.48**	**(334,034.59)**	**53,930.00**

Kinneloa Irrigation District
Balance Sheet as of August 31, 2024

ASSETS

Current Assets

1010	Checking-Wells Fargo Bank	$ 191,373.48	
1012	Reserve Fund-LAIF	999,166.41	
1016	Accrued Interest-LAIF	7,713.64	
1100	Accts. Receivable-Water Sales	32,352.46	
1190	Allowance for Bad Debts	(771.48)	
1200	Inventory	20,000.00	
1340	Accrued Water Sales	201,622.20	
1350	Prepaid Insurance	7,324.63	
1360	Prepaid Expenses	48,193.75	
	Total Current Assets		1,506,975.09

Property and Equipment

	Total Property and Equipment		5,124,597.26

Other Assets

1901	PERS-Deferred Outflows	197,834.00	
	Total Assets		$ 6,829,406.35

LIABILITIES AND CAPITAL

Current Liabilities

2000	Accounts Payable	$ 30,689.71	
2005	Umpqua Visa Payable	4,541.92	
2271	Deposits-Construction Meters	850.00	
2272	Job Deposits	21,800.00	
2275	Deposits-Water Customers	255.02	
2290	Accrued Vacation	12,075.40	
	Total Current Liabilities		70,212.05

Long-Term Liabilities

2400	Installment Purchase Agreement	1,068,799.30	
2801	PERS- Net Liability	474,298.36	
2901	PERS- Deferred Inflows	42,327.00	
	Total Long-Term Liabilities		1,585,424.66
	Total Liabilities		1,655,636.71

Capital

3040	Fund Balance	5,189,761.01	
	Net Income	(15,991.37)	
	Total Capital		5,173,769.64
	Total Liabilities & Capital		$ 6,829,406.35

Kinneloa Irrigation District
Check/EFT Register
August 1, 2024 to August 31, 2024

Date	Check #	Payee	Amount	Description
08/15/24	EFT6295	Bernadette C. Allen	1,343.25	payroll
08/15/24	EFT6296	Arthur M. Aragon	2,250.65	payroll
08/15/24	EFT6297	Ramon Jr. Ascencio	2,968.36	payroll
08/15/24	EFT6298	Christopher A. Burt	3,470.54	payroll
08/15/24	EFT6299	Felipe Gallegos	2,120.60	payroll
08/15/24	EFT6300	Thomas L. Majich	4,879.21	payroll
08/15/24	EFT6301	Leo Majich	191.39	payroll
08/15/24	EFT6302	Melanie E. Timoteo	2,161.08	payroll
08/15/24	EFT6303	Christopher A. Burt	300.00	payroll
08/15/24	EFT6304	Felipe Gallegos	50.00	payroll
08/15/24	EFT6305	Automatic Data Processing, Inc.	8,116.41	payroll taxes and withholdings
08/23/24	EFT6306	Automatic Data Processing, Inc.	124.12	payroll processing fee
08/23/24	EFT6307	Applied Technology Group, Inc.	120.00	PWAG radios
08/23/24	EFT6308	Arco Gaspro Plus	841.40	vehicle fuel
08/23/24	EFT6309	AT&T - SCADA	303.95	SCADA communication
08/23/24	EFT6310	CA Public Employees Ret. Sys.	8,195.23	KID & employee retirement contributions
08/23/24	EFT6311	Nexbillpay	1,935.42	credit card processing fees
08/23/24	EFT6312	Nexbillpay	360.90	eCheck processing fees
08/23/24	EFT6313	Pasadena Municipal Services	5,329.95	electricity - Wilcox Well
08/23/24	EFT6314	Southern California Edison Co.	24,311.98	electricity - 13 sites
08/23/24	11074	ACWA-JPIA	4,779.45	property insurance
08/23/24	11075	ACWA-JPIA	8,630.60	KID & employee health benefits contributions
08/23/24	11076	Alert Communications, Inc.	75.00	telephone
08/23/24	11077	Ampstun Corporation	937.98	bill printing & delivery service
08/23/24	11078	South Coast AQMD	541.04	annual renewal generator fees
08/23/24	11079	South Coast AQMD	165.96	annual emissions generator fees
08/23/24	11080	South Coast AQMD	541.04	annual renewal generator fees
08/23/24	11081	South Coast AQMD	165.96	annual emissions generator fees
08/23/24	11082	South Coast AQMD	165.96	annual emissions generator fees
08/23/24	11083	South Coast AQMD	541.04	annual renewal generator fees
08/23/24	11084	South Coast AQMD	165.96	annual emissions generator fees
08/23/24	11085	South Coast AQMD	541.04	annual renewal generator fees
08/23/24	11086	South Coast AQMD	165.96	annual emissions generator fees
08/23/24	11087	South Coast AQMD	541.04	annual renewal generator fees
08/23/24	11088	Bluegrass Integrated Communications	466.34	bill printing & delivery service
08/23/24	11089	BMC Landscape Management	2,550.00	landscape maintenance
08/23/24	11090	Building Solutions Group, Inc.	6,125.00	electrical survey and report
08/23/24	11091	Civiltec Engineering, Inc.	2,497.50	Eucalyptus-Glen-Vosburg Blending Project
08/23/24	11092	Clinical Lab of San Bernardino	320.00	water analysis
08/23/24	11093	Clinical Lab of San Bernardino	430.00	water analysis
08/23/24	11094	Cricket Consulting	1,288.00	AVEVA renewal
08/23/24	11095	Cricket Consulting	957.09	SCADA operation and maintenance
08/23/24	11096	Cricket Consulting	2,709.79	SCADA operation and maintenance
08/23/24	11097	Underground Service Alert	13.70	Digalert
08/23/24	11098	FLO-LOC Products International	1,000.00	service and maintenance inspection - 2 sites
08/23/24	11099	Foothill Municipal Water District	1,088.01	administrative fee (O & M charge)
08/23/24	11100	Generator Services Co.	967.00	generator maintenance - 1 site
08/23/24	11101	Geotab USA, Inc	79.00	vehicle maintenance
08/23/24	11102	McMaster Carr	845.44	maintenance supplies
08/23/24	11103	National Construction Rentals	196.03	portable restroom

Kinneloa Irrigation District
Check/EFT Register
August 1, 2024 to August 31, 2024

Date	Check #	Payee	Amount	Description
08/23/24	11104	Public Water Agencies Group	380.41	PWAG monthly assessment
08/23/24	11105	Raymond Basin Management Board	1,338.48	Title 22 monitoring: lab fees, sampling/admin.
08/23/24	11106	Technology Systems	810.00	meter box cleanouts
08/23/24	11107	Ultimate Cleaning Solutions, Inc.	90.00	janitorial service
08/23/24	11108	Utility Service Co., Inc.	6,072.45	tank maintenance
08/23/24	11109	Water Resources Economics	7,098.24	rate study
08/23/24	11110	Western Water Works	1,078.13	water tunnels supplies
08/31/24	EFT6315	Automatic Data Processing, Inc.	112.59	payroll processing fee
08/31/24	EFT6316	AT&T Mobility	62.36	FirstNet wireless service
08/31/24	EFT6317	Spectrum	279.94	internet & telephone services
08/31/24	EFT6318	Streamline	249.00	website service
08/31/24	EFT6319	Umpqua Bank	6,415.70	staff credit card purchases
08/31/24	EFT6320	Bernadette C. Allen	1,010.40	payroll
08/31/24	EFT6321	Arthur M. Aragon	2,048.21	payroll
08/31/24	EFT6322	Ramon Jr. Ascencio	3,084.53	payroll
08/31/24	EFT6323	Stephen Brown	277.05	payroll
08/31/24	EFT6324	Christopher A. Burt	3,175.78	payroll
08/31/24	EFT6325	Timothy J. Eldridge	277.05	payroll
08/31/24	EFT6326	John R. Feliton	277.05	payroll
08/31/24	EFT6327	Felipe Gallegos	1,943.95	payroll
08/31/24	EFT6328	Thomas L. Majich	4,879.22	payroll
08/31/24	EFT6329	Arthur W. Opel	277.05	payroll
08/31/24	EFT6330	Melanie E. Timoteo	1,788.29	payroll
08/31/24	EFT6331	Christopher A. Burt	300.00	payroll
08/31/24	EFT6332	Felipe Gallegos	50.00	payroll
08/31/24	EFT6333	Automatic Data Processing, Inc.	7,476.77	payroll taxes and withholdings
Total			**159,718.02**	

Kinneloa Irrigation District

Umpqua Bank Visa - Cash Disbursements Journal

For the Period from Aug. 1, 2024 to Aug. 31, 2024

Date	Check #	Name	Line Description	Amount	Account ID	Account Description
8/1/24	20240801CB-1	Autozone Auto Parts	motor oil	54.18	5035	Vehicle Maintenance
8/1/24	20240801FG-1	Home Depot	compact lopper, nitrile gloves	27.54	5010	Maintenance Supplies
8/1/24	20240801MA-1	Google LLC	Google Workspace	129.60	6059	Computer/Software Maintenance
8/2/24	20240802CB-1	PulseTech Products Corporation	battery chargers and connectors	256.90	5010	Maintenance Supplies
8/5/24	20240805RA-1	Altadena Hardware	copper sulfate	68.95	5010	Maintenance Supplies
8/6/24	20240806CB-1	Sper Scientific Instruments LLC	mercury-free thermometer	93.75	5010	Maintenance Supplies
8/10/24	20240810BA-1	Ware Disposal	trash pickup services	466.12	6075	Professional Services
8/10/24	20240810TM-1	SimpliSafe	security system	665.02	1514	Computer/Office Equipment
8/12/24	20240812RA-1	Altadena Hardware	battery, trowel	15.86	5010	Maintenance Supplies
8/13/24	20240813TM-1	Amazon.com Inc	copper sulfate	604.78	5010	Maintenance Supplies
8/14/24	20240814MA-1	Amazon.com Inc	Sharpie markers	20.84	6035	Office/Computer Supplies
8/16/24	20240816MA-1	Amazon.com Inc	paper goods, envelopes, pens, trash bags	145.72	6035	Office/Computer Supplies
8/16/24	20240816RA-1	Ganahl Lumber Company	granite drill bit	4.73	5010	Maintenance Supplies
8/16/24	20240816RA-2	Home Depot	ratchet tool, hammer drill	252.47	5010	Maintenance Supplies
8/19/24	20240819TM-1	Upwork	engineering services	26.25	6000	Engineering Services
8/20/24	20240820MA-1	Staples, Inc.	cleaning supplies, paper	259.09	6035	Office/Computer Supplies
8/23/24	20240823MA-1	Staples, Inc.	paper, paper clips	25.49	6035	Office/Computer Supplies
8/26/24	20240826FG-1	Home Depot	folding knife, yellow vest	43.81	5010	Maintenance Supplies
8/26/24	20240826TM-1	Home Depot	salt crystals	1,105.17	5026	Water Treatment/Supplies
8/27/24	20240827RA-1	Ganahl Lumber Company	pick-mattock	44.97	5010	Maintenance Supplies
8/28/24	20240828FG-1	Grainger	pump/5 gallon carrying tank	230.68	5010	Maintenance Supplies
	Total			**4,541.92**		

System Water Loss Audit - August 2024

Subeca Read Date	7/25/24	8/22/24				
Subeca Read Time	11:00	11:00			Variance	
	Level	Level	Variance	Gal/Foot	Gallons	
Eucalyptus Reservoir	12.89	18.62	5.73	8,410.00	48,189.30	
Sage Tank	21.55	21.53	(0.02)	10,000.00	(200.00)	
West Tank	21.65	21.61	(0.04)	22,124.00	(884.96)	
Wilcox Reservoir	17.75	17.39	(0.36)	65,739.00	(23,666.04)	
Holly East	21.16	21.73	0.57	6,388.00	3,641.16	
Holly West	16.26	17.12	0.86	7,610.00	6,544.60	
Glen Reservoir	13.69	13.95	0.26	7,812.00	2,031.12	
Brown Reservoir	14.84	14.55	(0.29)	7,812.00	(2,265.48)	
Vosburg Reservoir	13.32	13.40	0.08	22,800.00	1,824.00	
East Tank	18.37	16.53	(1.84)	6,976.00	(12,835.84)	
			TANK VOLUME CHANGE		22,378	gallons
		TOTAL GROUNDWATER PRODUCED			23,508,784	gallons
				PWP IMPORT	-	gallons
			NET SYSTEM DEMAND		23,486,406	gallons
					31,399	CCF
				Metered Sales	25,946	CCF
				Loss	5,453	CCF
				Loss	4,078,798	gallons
				Loss %	17.4%	
				Previous Month Loss%	12.7%	
				YTD System Demand	154,361	
				YTD Metered Sales	130,571	
				YTD Loss %	15.41%	

WATER SAMPLE RESULTS SUMMARY
AUGUST 2024

SAMPLE DATE	LAB	SOURCE OR DISTRIBUTION	TEST ANALYSIS	DESCRIPTION	# SAMPLES	# TESTS	RESULTS	COMMENTS
8/6/2024	Clinical	Distribution	Bacteriological	Total Coliform, E.Coli	6	12	ND	
8/6/2024	Clinical	Distribution	General Physical	Color, Odor, Turbidity	6	18	< MCL	Color, odor, turbidity are regulated by a secondary standard to maintain aesthetic qualities such as taste, smell, & appearance.
8/6/2024	Clinical	Distribution	Field	Chlorine Residual**	6	6	0.98 - 1.46 mg/L	District permit requires Chlorine Residual to be > 0.5 mg/L.
8/6/2024	Clinical	Source*	Bacteriological	Total Coliform, E.Coli	2	4	ND	The District is only required to test active raw groundwater sources each month. Currently, the only active raw groundwater source is Kinneloa #3 Well.
8/20/2024	Clinical	Distribution	Bacteriological	Total Coliform, E.Coli	5	10	2 positives	Eucalyptus Tunnel and House Tunnel tested positive for Total Coliform. Eucalyptus Tunnel has been offline since 4/7/2023 and House Tunnel has been offline since 12/1/2023. Hi Pressure Tunnel was not tested during the month of August because it was diverted to a different location for spreading.
8/20/2024	Clinical	Distribution	Field	Chlorine Residual	6	6	1.09 - 1.64 mg/L	District permit requires Chlorine Residual to be > 0.5 mg/L.
				Total Samples	31	56		

NOTES:

*All source groundwater tunnels were diverted to spreading on 12/01/2023. Delores Tunnel turned was into the system on 5/01/2024.

**District permit requires Chlorine Residual to be > 0.5 mg/L.

< MCL = less than Maximum Contaminant Level, ND = not detected, mg/L = milligrams per liter

WATER PRODUCTION AND SALES REPORT FOR JULY 2023 THROUGH JUNE 2024

Summary of production sources, customer sales, rainfall, long and short-term storage and activities and initiates for the Watermaster year of July 2023 through June 2024.

Production

The Kinneloa Irrigation District (KID) produced 559.3 acre-feet to the system from our wells and tunnels for the year of 2023-2024, July through June, as shown in Figure 1. We did not deliver any water to Pasadena Water and Power during this period, all production was to serve our retail customers. Water production for our retail customers and system use was 2.1% more than the 547.6 acre-feet produced in the 2022-2023 water year. The gross system production value for 2023-2024 was 75% of the 30-year historical average.

Figure 1 includes data from water years1994-1995 through 2023-2024 for all production sources as well as for surface water and groundwater diverted from our system for spreading credits. Spreading credits are added to our available extraction rights in the subsequent water year for which the spreading occurs. Figure 2 shows the proportion for total production for each year broken down by KID wells and tunnels. Gross tunnel production (to system and spreading) is dependent on rainfall and groundwater recharge from precipitation and has ranged from a high of 1033.4 acre-feet in 2004-2005 to a low of 194.5 acre-feet in 2017-2018. Tunnel production to the system is dependent on system operational needs, ability to deliver wholesale water to Pasadena Water and Power and the quality of tunnel water. Gross tunnel production (including production for spreading) for 2023-2024 was 661.4 acre-feet which is significantly higher than the 30-year average of 453.2 acre-feet, this is due to two consecutive years of higher-than-average rainfall. Tunnel production to the system in 2023-2024 was 176.4 acre-feet, this is significantly lower than the 30-year average of 230.7 acre-feet per year. The reason that total tunnel production was significantly above the historical average but delivery to the system was significantly lower than the historical average, is due to the expiration of the District's fluoride variance

in December 2023 which required tunnels to be diverted to spreading that otherwise would have delivered to the system. Figure 3 is a circle chart showing the percentage of total production by source for the water year ending June 2024. This most recent year our wells produced 68% of the water and the tunnels produced 32% of the system water.

Sales

Total sales to retail customers were 474.8 acre-feet as shown in Figure 4, the lowest sales figure in the 30-year history. Previous water year sales of 493.2 acre-feet held the record for lowest recorded water sales until this most recent water year. The average monthly sales of water during the year from 1994-1995 to 2023-2024 are shown in Figure 5. Peak sales are usually in the July through September period and minimum sales usually occur in December through March period. Weather conditions in a year can cause these periods to shift and can drastically affect the total sales for the year.

Water Use Efficiency

The KID has extensively promoted measures to increase water use efficiency over the past seventeen years and has participated in rebate programs to provide incentives to our customers to reduce water usage. Recent water year usage has been significantly lower than average, due to two consecutive years of higher-than-average rainfall. Given that customer consumption was cut back significantly due to that rainfall, no meaningful evaluation of customer conservation efforts can be made for the recent two water years. Nevertheless, the data indicates a meaningful decrease in usage as compared to the base year of 2006-2007 when water use efficiency became a mandate from the State and a priority for the KID. The KID will continue to promote water use efficiency in compliance with state and local regulations and the District's Rules and Regulations.

Non-Revenue Water Use and Water Loss

The difference between the water produced and water sold and used for system purposes (which is the water loss for the system) was 84.5 acre-feet or 15.1% as shown in Figure 1. The loss is attributed to system leaks, main flushing for water quality purposes, fire flow tests, unmetered water used for firefighting and various other purposes, normal operational procedures at KID facilities and water meter inaccuracies. This loss is more than the 30-year average of 84.0 acre-feet or approximately 10.1%. A water loss of less than 10% is excellent by industry standards. Although we do not have a means to track non-metered water usage, during the 2023-2024 year there were several moderate system leaks and water was lost during maintenance of our tanks and reservoirs.

Rainfall

Rainfall for 2023-2024 was 33.8 inches, as recorded by Los Angeles County Department of Public Works at the Eaton Dam Wash, as shown in Figures 1 and Figure 6 as compared to 48.6 inches in the previous year and well above the 30-year average of 21.7 inches.

Long-Term Storage

The Raymond Basin Management Board (RBMB) established a long-term storage program to cover situations such as prolonged drought or unusually high demand that might lead to over pumping of our water rights in the current year. The KID activated its long-term storage account for the first time in 2004-2005 by adding 327 acre-feet of surplus water as shown in Figure 1. Due to declining water levels in the Raymond Basin, the RBMB voted to suspend the program and freeze the total at the end of the 2008-2009 year. Long Term Storage accounts are reduced 1% annually to account for basin level water loss. In the subsequent years KID was able to add to Long-Term Storage only enough to offset the 1% loss. That practice was ended by the RBMB at the end of the 2019 water year. The current Long-Term Storage policy is that no additions may be made, no pumping may be produced from the account, and the account value is reduced by 1% annually. At the end of the 2024 water year, KID has 743.8 acre-feet in its Long-Term Storage account.

Short-Term Storage

The RBMB established a short-term storage program in 2016 for the Pasadena subarea for agencies with excess pumping rights at water year end of less than 300 acre-feet to allow operational flexibility and allow for better planning and utilization of leases, management of decreed rights and maximize beneficial use of spreading credits. The maximum amount of water is limited to 300 acre-feet and is added to the production right at the beginning of the following year. At the end of the 2023-2024 water year, the KID had 347.0 acre-feet of surplus production rights. For the 2024-2025 water year KID will start with the maximum allowed 51.6 acre-feet designated as Carryover Right (maximum 10% of 1955 Decreed Rights) and the maximum allowed 248.4 acre-feet in its Short-Term Storage Account.

Spreading Operations

In the early 1970s, new drinking water quality regulations rendered the direct use of most surface water supplies in the Raymond Basin unacceptable for use as sources of potable water without additional treatment. As a result, the Raymond Basin Advisory Board developed a methodology by which parties with surface “diversion rights” could divert these surface water to spreading basins or natural stream channels leading to spreading basins and receive additional pumping credits (recapture credits) in lieu of constructing treatment facilities. These recapture credits are in addition to adjudicated groundwater

extraction rights. The original spreading methodology was established in 1973 and revised in 1994 which is the standard in practice today. KID has certain surface water rights in and often diverts groundwater from its tunnels sources to spreading. The general methodology is that KID will receive a recapture credit of 80% of any water spread in District owned facilities or property. For District water which is diverted to a Los Angeles County Public Works Department facility for percolation into the ground, the District will receive a recapture credit of 80% of the water delivered to the spreading basin that is not discharged from the spreading basin due to overflow.

Recapture or "spreading" credits are a critical portion of KID's supply portfolio. Figure 7 shows the recapture credit value for each watermaster year ending 2005 through 2024. Supplementing net decreed pumping rights with recapture credits is necessary to have the supply available to meet customer demand. The expiration of the District's fluoride variance in December 2023 required several tunnel sources that otherwise would have been produced directly into the system, to instead be diverted for spreading. If these tunnel sources become unavailable for direct production into the system in the future, maintaining the tunnels and their distribution system for spreading operations is a critical function.

Production Issues

Figure 1 shows that the Wilcox Well produced 50.8 acre-feet of water in 2023-2024 as compared with 272.4 acre-feet in the peak year of 1999-2000. The level in the Raymond Basin aquifer at this facility has caused a 50% reduction in the available operational flow rate because the output from this well needs to be restricted to prevent entrainment of air and damage to the pump. As the production volume of the Wilcox Well is approximately 30% of the production volume at the K-3 Well, the District has used the Wilcox Well only during the summer season for the past few water years to avoid overuse of the K-3 Well.

Water levels in the Raymond Basin at both the K-3 and the Wilcox Well sites have risen substantially in the most recent two water years. The water level at the Wilcox Well achieved its modern lowest level in 2018 but has steadily risen since then, sharply so in the 2022-2024 water years period. The recovery in the groundwater elevation is due to a combination of increased rainfall, reduced pumping by Raymond Basin members and a focus of public agencies to reduce impermeable surfaces that direct surface water away from groundwater recharge and to the storm drainage system.

Although the gross production last year from the KID's tunnels was 145% of the 30-year average, much of that water was unable to be used in the system and was diverted to spreading. Tunnel water is not counted in our adjudicated pumping allowance and is our only source of low-cost supplemental water. Tunnel water delivers at multiple points in the system and particularly at higher elevation reservoirs, delivery of tunnel water instead of pumped groundwater avoids significant financial and environmental costs associated with

the pumping operations. Continued investment in treating our tunnel sources so they may be diverted directly to system use is a high priority, as is maintaining the tunnel delivery system through resilience measures.

Supply Issues

The court-ordered adjudication of pumping rights in the Raymond Basin no longer matches the natural replenishment rate. The voluntary 30% pumping reduction in the Pasadena subarea has helped to reduce the rate of decline in the basin level, but the RBMB has not yet developed an external replenishment source. Therefore, additional water resources, conservation measures and reduced pumping are being considered to stabilize the basin level.

The KID is the only water agency in the area that does not purchase imported supplemental water from the Metropolitan Water District of Southern California (MWD) or through its wholesale distributor, Foothill Municipal Water District (FMWD). The KID has not needed to purchase imported water because our local tunnel water, adjudicated pumping rights, spreading credits and available leases have been enough to meet customer demand. However, our independence from imported water is not assured unless we are able to maximize production of tunnel water to the system, maximize spreading of tunnel water not produced direct to the system, maintain the functionality of our groundwater pumping system and continue to lease or purchase unused pumping rights from other water agencies in the area.

We also continue to rely on our interconnections with the City of Pasadena for a water supply during system emergencies or for planned facility maintenance purposes, but that water must be returned to Pasadena as soon as possible after an event or purchased at the retail rate. The KID continues to work with FMWD to develop a long-term plan for supplemental water in case our ground water pumping rights are permanently reduced and/or leased or purchased pumping rights are no longer available. Since there is no pipeline from MWD or FMWD to the KID, a new connection would be needed, or an arrangement made with an adjacent water agency to wheel FMWD/MWD water through its pipelines to the KID. FMWD is the only source of supplemental water currently available to the KID.

Figure 1
Data for Watermaster Year (July through June) 1994-1995 to 2023-2024

*Production in Acre-Feet	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End
Source	**Jun-95**	**Jun-96**	**Jun-97**	**Jun-98**	**Jun-99**	**Jun-00**	**Jun-01**	**Jun-02**	**Jun-03**	**Jun-04**	**Jun-05**	**Jun-06**	**Jun-07**	**Jun-08**	**Jun-09**	**Jun-10**	**Jun-11**
Wilcox Well	93.2	119.6	170.2	165.4	209.6	272.4	216.9	203.7	213.7	148.9	60.2	37.2	70.2	5.6	5.6	7.3	7.1
K-3 Well	285.3	238.3	263.8	330.9	567.3	562.5	425.2	514.3	457.1	551.0	319.3	423.5	860.1	543.9	611.2	610.6	580.2
Total Well	378.5	357.9	434.0	496.3	776.9	834.9	642.1	718.0	670.8	699.9	379.5	460.7	930.3	549.5	616.7	617.8	587.3
Hi-Low Tunnel	71.3	217.0	177.2	146.6	143.1	132.6	111.1	86.0	57.6	59.8	125.6	171.9	131.0	107.6	89.2	80.1	98.8
House Tunnel	37.8	43.9	35.4	33.1	41.1	31.5	26.2	21.5	16.7	12.7	12.6	44.9	26.5	20.6	12.8	13.8	14.5
Eucalyptus Tunnel	56.5	64.9	62.6	58.7	62.4	54.0	44.3	38.6	29.5	41.5	50.0	50.4	44.6	43.2	39.1	37.4	39.8
Delores Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	126.5	223.3	83.6	63.7	40.2	44.8	98.5
Far Mesa Tunnel	73.6	69.1	67.7	68.3	78.9	74.1	56.7	52.0	47.7	45.6	68.2	39.6	13.1	48.6	42.9	38.9	41.2
Total Tunnel	239.2	394.9	342.9	306.7	325.5	292.2	238.3	198.1	151.5	162.0	382.9	530.1	298.8	283.7	224.2	215.0	292.8
Total Production to System	**617.7**	**752.8**	**776.9**	**803.0**	**1102.4**	**1127.1**	**880.4**	**916.1**	**822.3**	**861.9**	**762.5**	**990.8**	**1229.0**	**833.2**	**840.9**	**832.9**	**880.0**
Deliveries from Pasadena	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.5	0.0	0.0	18.8	0.0	0.0	1.5	0.0	0.0
Deliveries to Pasadena	0.0	0.0	0.0	-139.5	-325.8	-222.9	-64.1	-87.3	-61.7	0.0	0.0	-160.6	-321.8	0.0	-42.4	-105.1	-217.4
Net Import/(Export)	0.0	0.0	0.0	-139.5	-325.8	-222.9	-64.1	-87.3	-30.2	0.0	0.0	-141.8	-321.8	0.0	-40.9	-105.1	-217.4
Net Production for Retail	**617.7**	**752.8**	**776.9**	**663.5**	**776.6**	**904.2**	**816.3**	**828.8**	**792.1**	**861.9**	**762.5**	**849.0**	**907.2**	**833.2**	**800.0**	**727.8**	**662.7**

Diversions to Spreading in Acre-Feet																	
Source	**Jun-95**	**Jun-96**	**Jun-97**	**Jun-98**	**Jun-99**	**Jun-00**	**Jun-01**	**Jun-02**	**Jun-03**	**Jun-04**	**Jun-05**	**Jun-06**	**Jun-07**	**Jun-08**	**Jun-09**	**Jun-10**	**Jun-11**
Hi-Low Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
House Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	25.6	0.0	0.0	0.0	4.2	0.0	0.0
Kinneloa Canyon	140.7	50.2	54.3	56.8	48.6	52.1	33.4	28.9	12.2	9.5	31.2	40.4	45.4	27.2	21.4	21.2	37.8
Eucalyptus Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.9	16.7	0.0	0.0	0.0	0.0	0.0
Eaton Wash Sub Total	**140.7**	**50.2**	**54.3**	**56.8**	**48.6**	**52.1**	**33.4**	**28.9**	**38.0**	**9.5**	**81.7**	**57.2**	**45.4**	**27.2**	**25.6**	**21.2**	**37.8**
Delores Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.4	31.1	21.5	44.5	0.0	0.0	0.0	0.0	0.0	0.0
Long Tunnel	35.8	37.2	39.2	39.2	38.9	37.7	38.1	38.0	36.0	35.3	46.8	44.7	37.4	36.0	34.3	33.8	39.8
Far Mesa Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	30.2	42.5	0.0	0.0	0.0	0.0
Glen Wash	429.3	396.3	262.5	321.3	359.1	174.8	156.7	52.7	26.7	28.1	933.9	161.4	74.0	56.7	59.0	45.1	188.0
Tent Tunnel	5.1	5.5	5.4	5.3	5.8	3.4	2.4	2.3	2.1	2.0	3.2	3.5	2.9	2.5	2.1	2.0	1.8
Pasadena Glen Sub Total	470.2	439.0	307.1	365.8	403.8	215.9	201.8	134.4	95.9	86.9	1028.5	239.8	156.7	95.2	95.4	80.8	229.6
Sierra Madre Villa DB Outflow	-256.7	-32.8	-7.2	-33.7	0.0	0.0	0.0	0.0	0.0	0.0	-459.7	0.0	0.0	0.0	0.0	0.0	0.0
Net Pasadena Glen Sub Total	**213.5**	**406.2**	**299.9**	**332.1**	**403.8**	**215.9**	**201.8**	**134.4**	**95.9**	**86.9**	**568.8**	**239.8**	**156.7**	**95.2**	**95.4**	**80.8**	**229.6**
Total Diverted	**354.2**	**456.4**	**354.2**	**388.9**	**452.4**	**268.0**	**235.2**	**163.3**	**133.9**	**96.4**	**650.5**	**297.0**	**202.1**	**122.4**	**121.0**	**102.1**	**267.4**

Gross Tunnel Production	**Jun-95**	**Jun-96**	**Jun-97**	**Jun-98**	**Jun-99**	**Jun-00**	**Jun-01**	**Jun-02**	**Jun-03**	**Jun-04**	**Jun-05**	**Jun-06**	**Jun-07**	**Jun-08**	**Jun-09**	**Jun-10**	**Jun-11**
Hi-Low Tunnels	71.3	217.0	177.2	146.6	143.1	132.6	111.1	86.0	69.9	59.8	125.6	171.9	131.0	107.6	89.2	80.1	98.8
House Tunnel	37.8	43.9	35.4	33.1	41.1	31.5	26.2	21.5	20.3	12.7	38.2	44.9	26.5	20.6	16.9	13.8	14.5
Eucalyptus Tunnel	56.5	64.9	62.6	58.7	62.4	54.0	44.3	38.6	39.4	41.5	50.0	50.4	44.6	43.2	39.1	37.4	39.8
Delores Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.4	31.1	23.9	171.0	223.3	83.6	63.7	40.2	44.8	98.5
Far Mesa Tunnel	73.6	69.1	67.7	68.3	78.9	74.1	61.3	52.0	47.7	45.6	68.2	69.8	55.6	48.6	42.9	38.9	41.2
Long Tunnel	35.8	37.2	39.2	39.2	38.9	37.7	38.1	38.0	36.0	35.3	46.8	44.7	37.4	36.0	34.3	33.8	39.8
Tent Tunnel	5.1	5.5	5.4	5.3	5.8	3.4	2.4	2.3	2.1	2.0	3.2	3.5	2.9	2.5	2.1	2.0	1.8
Kinneloa Canyon	140.7	50.2	54.3	56.8	48.6	52.1	33.4	28.9	12.2	9.5	31.2	40.4	45.4	27.2	21.4	21.2	37.8
Glen Wash	429.3	396.3	262.5	321.3	359.1	174.8	156.7	52.7	26.7	28.1	933.9	161.4	74.0	56.7	59.0	45.1	188.0
Brown/Kinneloa Mesa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.9	16.7	0.0	0.0	0.0	0.0	0.0
Outflow	-256.7	-32.8	-7.2	-33.7	0.0	0.0	0.0	0.0	0.0	0.0	-459.7	0.0	0.0	0.0	0.0	0.0	0.0
SUBTOTAL	**593.4**	**851.3**	**697.1**	**695.6**	**777.9**	**560.2**	**473.5**	**361.4**	**285.4**	**258.4**	**1033.4**	**827.0**	**500.9**	**406.1**	**345.2**	**317.1**	**560.1**

Other Data	**Jun-95**	**Jun-96**	**Jun-97**	**Jun-98**	**Jun-99**	**Jun-00**	**Jun-01**	**Jun-02**	**Jun-03**	**Jun-04**	**Jun-05**	**Jun-06**	**Jun-07**	**Jun-08**	**Jun-09**	**Jun-10**	**Jun-11**
Rainfall (inches)	43.6	22.6	22.8	52.3	14.5	18.8	20.0	7.9	24.5	10.1	58.0	21.8	5.8	24.6	16.1	23.6	31.3
Metered Water Usage (AF)	582.0	668.8	679.9	600.4	666.3	782.9	710.9	739.1	717.7	772.6	672.6	785.8	816.3	754.1	729.7	665.9	590.8
Unmetered Water Loss (AF)	35.7	84.0	97.0	63.1	110.3	121.3	105.4	89.7	74.4	89.3	89.8	63.2	90.9	79.0	70.3	61.9	71.8
Unmetered Water Loss (%)	5.8	11.2	12.5	7.9	10.0	10.8	12.0	9.8	9.0	10.4	11.8	6.4	7.4	9.5	8.4	7.4	8.2
RBMB LTS Account (AF)											326.9	847.9	728.6	797.9	789.9	790.0	790.0
Power ($)	71,086	55,137	68,132	57,193	86,488	97,064	77,780	111,676	111,062	100,410	87,537	82,476	112,924	89,011	92,204	92,700	92,700
Power ($ per AF ofTProduction)	115	73	88	71	78	86	88	122	135	116	115	83	92	107	110	111	105

Figure 1
Data for Watermaster Year (July through June) 2009/10 tthrough 2023/24

*Production in Acre-Feet	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	WY End	30-Year
Source	Jun-12	Jun-13	Jun-14	Jun-15	Jun-16	Jun-17	Jun-18	Jun-19	Jun-20	Jun-21	Jun-22	Jun-23	Jun-24	Average
Wilcox Well	9.5	57.6	11.5	8.7	8.3	5.1	2.7	1.0	1.4	4.9	61.7	34.5	50.8	75.5
K-3 Well	708.0	584.2	676.6	574.2	574.4	556.9	706.7	649.0	649.4	745.7	583.6	469.9	332.1	531.8
Total Well	717.5	641.9	688.0	582.9	582.7	562.0	709.4	650.1	650.7	750.6	645.3	504.4	382.9	607.3
Hi-Low Tunnel	94.3	53.5	36.2	40.2	36.7	40.9	33.5	44.0	52.0	43.8	36.8	59.9	34.0	87.1
House Tunnel	15.7	14.3	10.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	14.0	8.8	10.0	17.3
Eucalyptus Tunnel	40.5	40.7	41.5	40.0	39.4	39.0	48.1	44.0	45.6	55.7	48.2	35.4	0.0	44.5
Delores Tunnel	57.7	17.4	22.9	11.0	5.1	11.7	2.3	21.0	26.8	14.1	5.8	107.5	112.4	36.6
Far Mesa Tunnel	41.2	39.3	38.6	35.9	31.3	28.5	28.8	33.2	33.7	31.3	33.5	34.6	20.0	45.2
Total Tunnel	249.3	165.2	149.4	127.6	112.4	120.0	112.7	142.2	158.0	144.9	138.3	246.2	176.4	230.7
Total Production to System	**966.8**	**807.0**	**837.4**	**710.5**	**695.2**	**682.0**	**822.1**	**792.2**	**808.7**	**895.5**	**783.6**	**750.6**	**559.3**	838.0
Deliveries from Pasadena	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	36.7	0.0	0.0	0.0	3.0
Deliveries to Pasadena	-239.0	-47.8	0.0	-9.0	-86.4	-55.5	-87.2	-133.6	-119.4	-138.8	-51.5	-203.0	0.0	-97.3
Net Import/(Export)	-237.8	-47.8	0.0	-9.0	-86.4	-55.5	-87.2	-133.6	-119.5	-102.0	-51.5	-203.0	0.0	-94.3
Net Production for Retail	**729.1**	**759.3**	**837.4**	**701.5**	**608.8**	**626.5**	**734.9**	**658.6**	**689.2**	**793.5**	**732.2**	**547.6**	**559.3**	743.7

Diversions to Spreading in Acr														
Source	**Jun-12**	**Jun-13**	**Jun-14**	**Jun-15**	**Jun-16**	**Jun-17**	**Jun-18**	**Jun-19**	**Jun-20**	**Jun-21**	**Jun-22**	**Jun-23**	**Jun-24**	**Average**
Hi-Low Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	79.2	3.1
House Tunnel	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	14.4	13.2	10.2	12.1	21.2	3.5
Kinneloa Canyon	37.8	35.6	27.7	30.4	30.6	33.0	16.8	20.4	18.2	14.6	14.8	33.4	72.1	36.6
Eucalyptus Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5	77.8	3.5
Brown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	1.4
Eaton Wash Sub Total	**37.8**	**35.6**	**27.7**	**30.7**	**30.6**	**33.0**	**16.8**	**20.8**	**32.6**	**27.8**	**25.0**	**63.0**	**250.3**	48.0
Delores Tunnel	0.0	0.0	0.0	1.7	0.0	0.0	0.0	1.2	0.0	0.0	0.0	3.3	83.9	7.6
Long Tunnel	38.4	34.4	29.9	28.5	27.7	33.9	32.7	38.7	41.3	33.5	32.8	42.9	59.3	37.4
Far Mesa Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	29.2	3.8
Glen Wash	88.7	89.2	73.1	55.6	52.5	60.5	30.0	52.0	43.5	35.6	36.6	79.2	62.3	149.5
Tent Tunnel	2.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	0.4	0.0	0.0	0.0	0.0	2.5
Pasadena Glen Sub Total	129.9	125.9	105.3	88.1	82.4	96.8	65.0	94.1	85.2	69.1	69.4	133.2	234.7	200.9
Sierra Madre Villa DB Outflow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.3
Net Pasadena Glen Sub Total	**129.9**	**125.9**	**105.3**	**88.1**	**82.4**	**96.8**	**65.0**	**94.1**	**85.2**	**69.1**	**69.4**	**133.2**	**234.7**	174.5
Total Diverted	**167.7**	**161.4**	**133.0**	**118.8**	**113.0**	**129.7**	**81.8**	**114.9**	**117.8**	**96.9**	**94.3**	**196.2**	**485.0**	222.5

Gross Tunnel Production	**Jun-12**	**Jun-13**	**Jun-14**	**Jun-15**	**Jun-16**	**Jun-17**	**Jun-18**	**Jun-19**	**Jun-20**	**Jun-21**	**Jun-22**	**Jun-23**	**Jun-24**	**Average**
Hi-Low Tunnels	94.3	53.5	36.2	40.2	36.7	40.9	33.5	44.0	52.0	43.8	36.8	59.9	113.2	90.1
House Tunnel	15.7	14.3	10.2	0.9	0.0	0.0	0.0	0.0	14.4	13.2	24.2	20.9	31.2	20.8
Eucalyptus Tunnel	40.5	40.7	41.5	40.0	39.4	39.0	48.1	44.0	45.6	55.7	48.2	52.8	77.8	48.0
Delores Tunnel	57.7	17.4	22.9	12.8	5.1	11.7	2.3	22.2	26.8	14.1	5.8	110.7	196.3	44.2
Far Mesa Tunnel	41.2	39.3	38.6	35.9	31.3	28.5	28.8	33.2	33.7	31.3	33.5	42.4	49.2	49.0
Long Tunnel	38.4	34.4	29.9	28.5	27.7	33.9	32.7	38.7	41.3	33.5	32.8	42.9	59.3	37.4
Tent Tunnel	2.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	0.4	0.0	0.0	0.0	0.0	2.5
Kinneloa Canyon	37.8	35.6	27.7	30.4	30.6	33.0	16.8	20.4	18.2	14.6	14.8	33.4	72.1	36.6
Glen Wash	88.7	89.2	73.1	55.6	52.5	60.5	30.0	52.0	43.5	35.6	36.6	79.2	62.3	149.5
Brown/Kinneloa Mesa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	1.4
Outflow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SUBTOTAL	**417.0**	**326.6**	**282.4**	**246.4**	**225.4**	**249.7**	**194.5**	**257.1**	**275.8**	**241.8**	**232.6**	**442.4**	**661.4**	**453.2**
														0.0
Other Data	**Jun-12**	**Jun-13**	**Jun-14**	**Jun-15**	**Jun-16**	**Jun-17**	**Jun-18**	**Jun-19**	**Jun-20**	**Jun-21**	**Jun-22**	**Jun-23**	**Jun-24**	**Average**
Rainfall (inches)	11.8	8.3	5.2	8.2	12.3	24.1	10.3	27.8	19.5	5.6	17.7	48.6	33.8	21.7
Metered Water Usage (AF)	654.9	696.2	760.2	642.7	502.6	568.8	628.4	562.1	579.1	676.0	615.5	493.2	474.8	659.7
Unmetered Water Loss (AF)	74.1	63.1	77.2	58.8	106.1	57.7	106.5	96.5	110.2	117.4	116.6	54.4	84.5	84.0
Unmetered Water Loss (%)	7.7	7.8	9.2	8.3	15.3	8.5	13.0	12.2	13.6	13.1	14.9	7.2	15.1	10.1
RBMB LTS Account (AF)	790.0	790.0	790.0	790.0	790.0	790.0	790.0	782.1	774.3	766.6	758.9	751.3	743.8	758.9
Power ($)	93,964	105,248	113,611	114,917	103,595	117,767	127,709	116,189	128,377	152,357	186,323	175,469	175,453	106,552
Power ($ per AF ofTProduction)	97	130	136	162	149	173	155	147	159	170	238	234	314	132

Figure 2
Total System Production
July through June

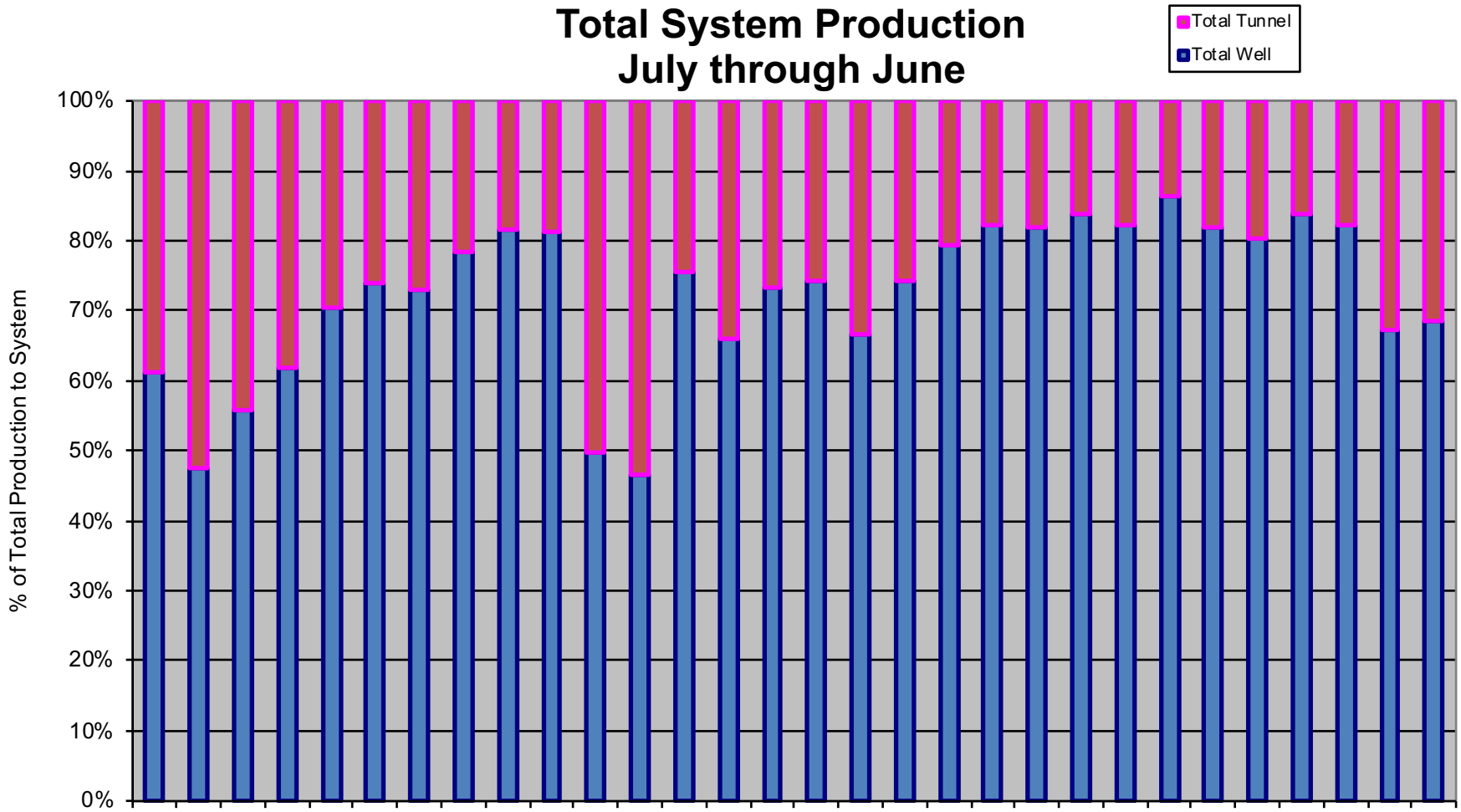


Figure 3
2023-2024 Production Sources

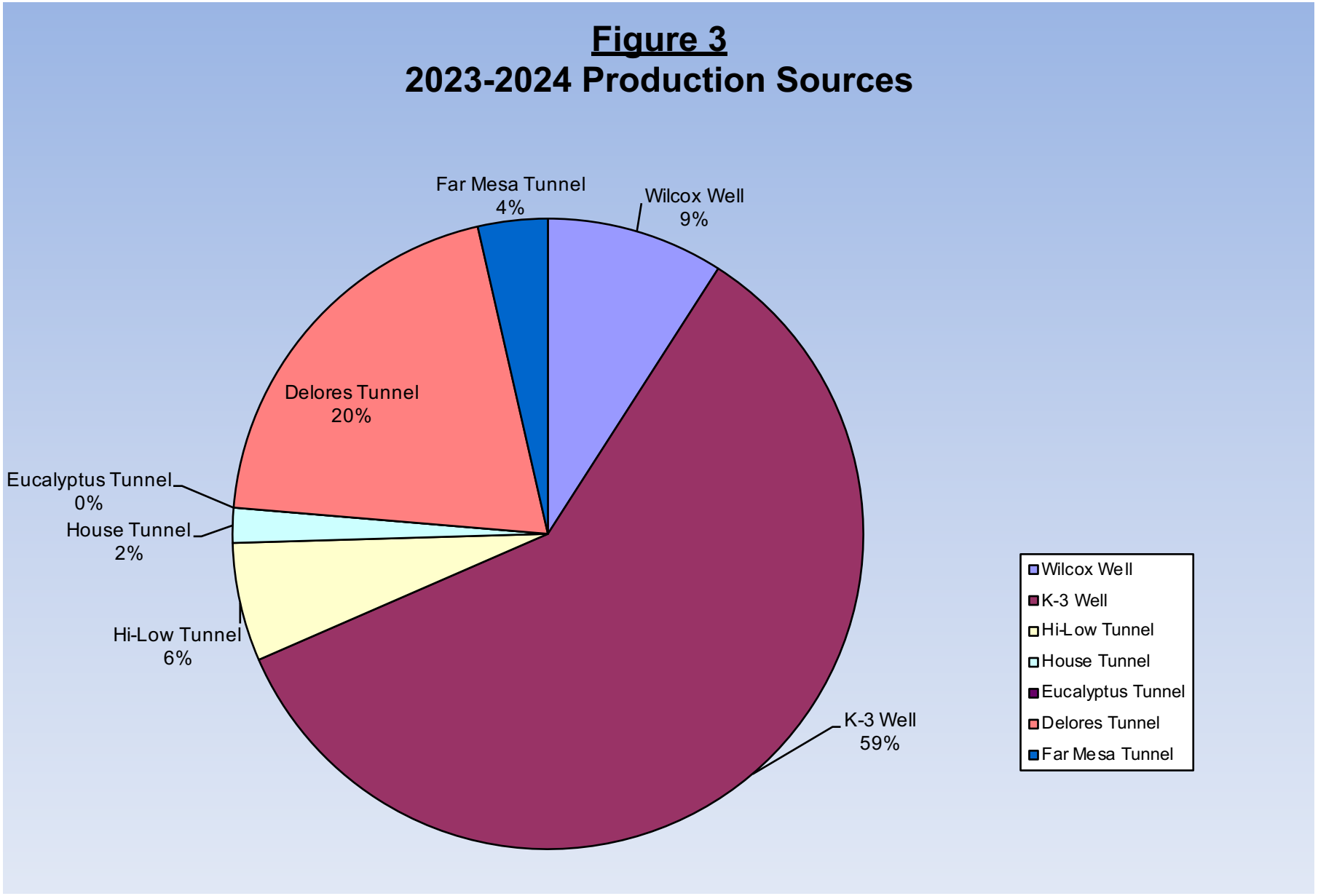


Figure 4
Annual Water Sales
July through June

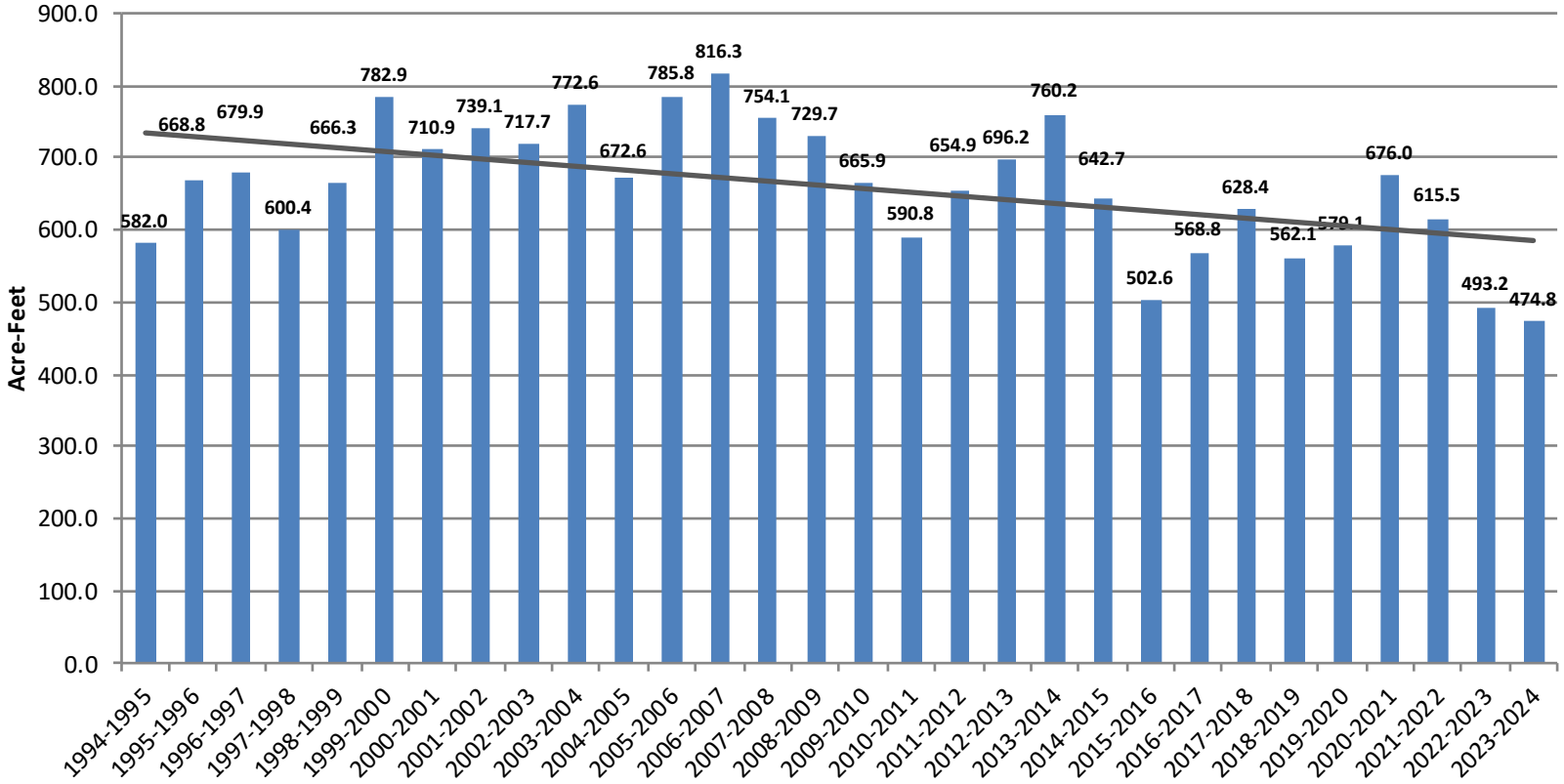


Figure 5

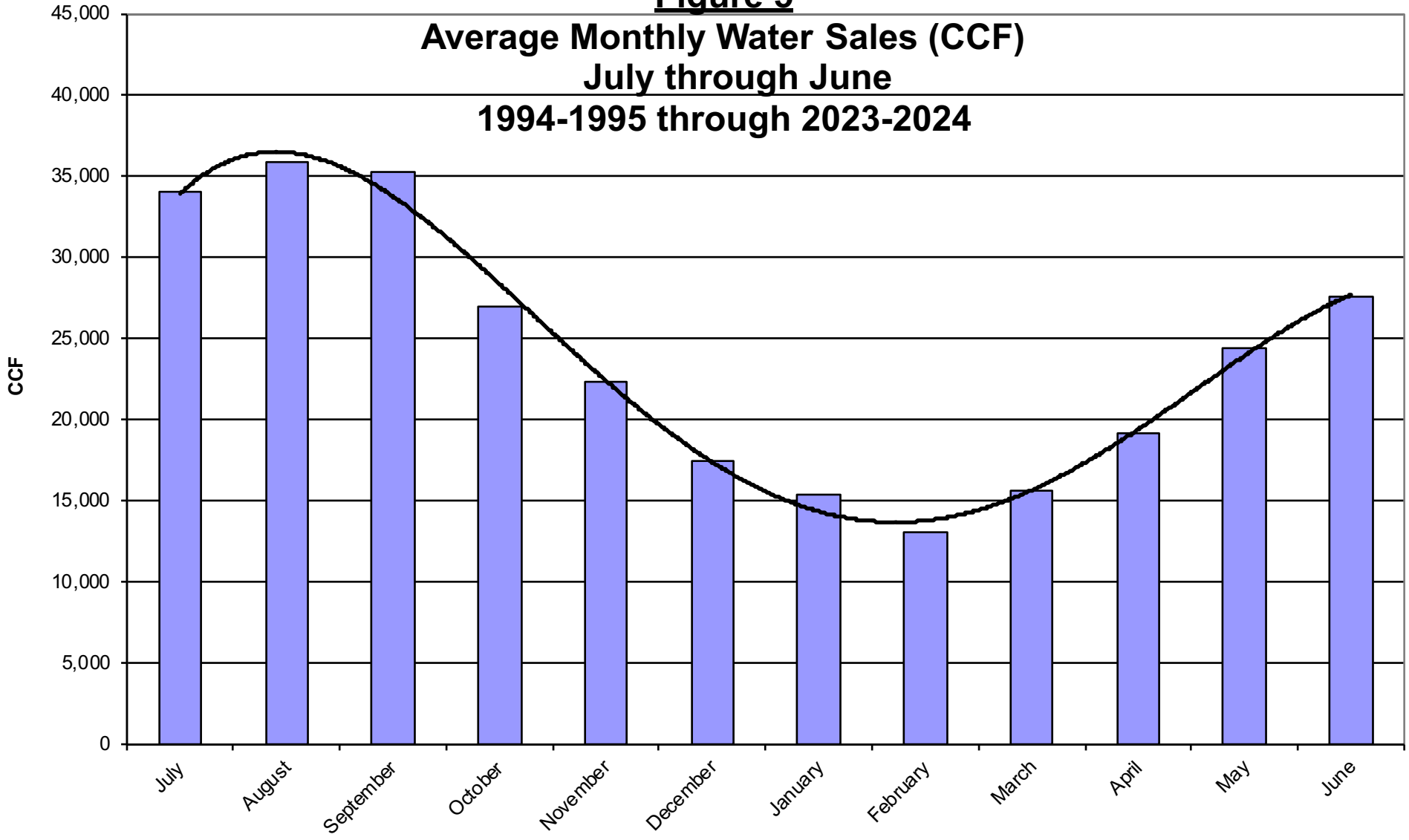

Average Monthly Water Sales (CCF)
July through June
1994-1995 through 2023-2024
CCF
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
July
August
September
October
November
December
January
February
March
April
May
June

Figure 6
Rainfall

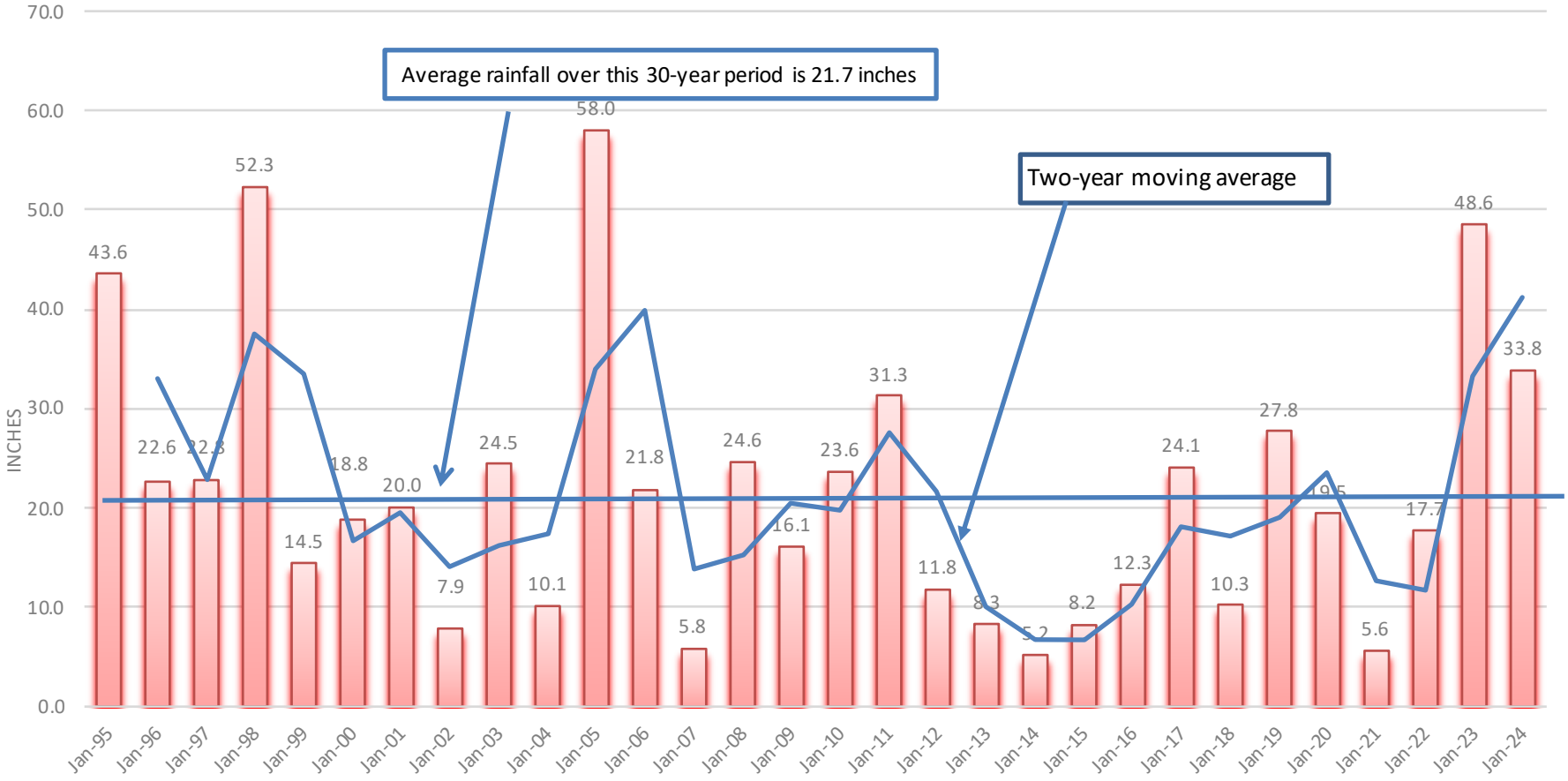
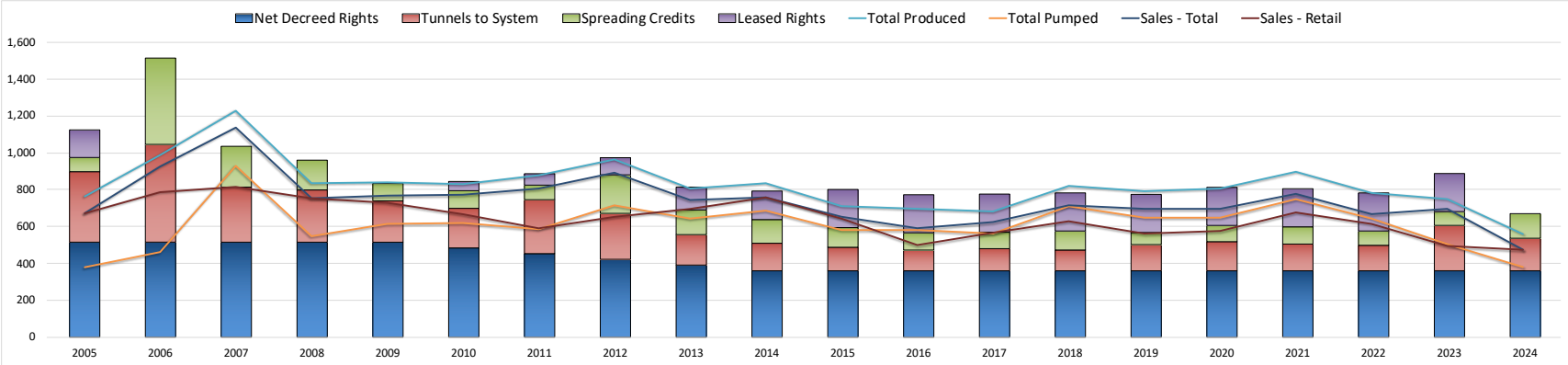


Figure 7
Supply Portfolio Composition
Watermaster Years Ending 2005-2024

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Net Decreed Rights	516.00	516.00	516.00	516.00	516.00	485.04	454.08	423.12	392.16	361.20	361.20	361.20	361.20	361.20	361.20	361.20	361.20	361.20	361.20	361.20
Tunnels to System	382.93	530.09	298.77	283.65	224.20	215.02	292.76	249.34	165.18	149.40	127.58	112.43	120.01	112.71	142.15	157.99	144.91	138.29	246.18	176.40
Spreading Credits	76.60	469.02	221.75	161.70	95.70	95.70	79.10	209.30	133.60	128.40	106.50	93.30	89.22	103.00	65.40	87.80	93.40	77.40	74.61	133.68
Leased Rights	150.00	0.00	0.00	0.00	0.00	50.00	62.00	93.00	124.00	155.00	207.00	207.00	207.00	207.00	207.00	207.00	207.00	207.00	207.00	0.00
Total Produced	762.47	990.78	1,229.02	833.17	840.93	832.86	880.04	966.84	807.03	837.40	710.49	695.15	682.01	822.12	792.21	808.73	895.52	783.63	750.58	559.30
Total Pumped	379.54	460.69	930.25	549.52	616.73	617.84	587.28	717.50	641.85	688.00	582.91	582.72	562.00	709.41	650.06	650.74	750.61	645.34	504.40	382.90
Sales - Total	672.63	927.59	1,138.09	754.14	770.61	770.99	808.20	892.69	743.97	760.15	651.72	589.02	624.29	715.57	695.73	698.57	778.08	667.01	696.21	474.79
Sales - Retail	672.63	785.81	816.30	754.14	729.67	665.90	590.83	654.90	696.19	760.16	642.73	502.64	568.80	628.36	562.09	579.07	676.04	615.54	493.24	474.79



Kinneloa Irrigation District

2024 Water Rate Study

Final Report – September 17, 2024

Prepared by: Water Resources Economics, LLC

Water Resources Economics

PROMOTING THE VALUE AND PRICE OF WATER SERVICE

This page intentionally left blank

September 17, 2024

Tom Majich
General Manager
Kinneloa Irrigation District
1999 Kinclair Dr
Pasadena, CA 91107

Subject: Kinneloa Irrigation District Water Rate Study Report

Dear Mr. Majich,

Water Resources Economics, LLC (WRE) is pleased to submit this 2024 Water Rate Study Report to Kinneloa Irrigation District (District). This report documents the results and recommendations of the District's water rate study. The goal of the study was to develop a five-year schedule of water rates that will sufficiently fund the District's water system expenses, allow the District to meet its financial goals within the study period, and comply with cost-of-service principles.

This study utilized industry-standard rate-setting methodology in accordance with guidelines developed by the American Water Works Association and incorporates guidance provided by the District's Board of Directors. Our project team has a proven track record of developing fair and equitable water rates for numerous public water agencies in California over the past 25 years. We are confident in our ability to develop sound water rates that satisfy the requirements of Proposition 218.

It has been a pleasure assisting the District, and we appreciate the support provided by yourself, Ms. Melanie Timoteo, the Board of Directors, and other District staff during this study.

Sincerely,

Sanjay Gaur
President

Hannah Phan
Principal Consultant

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1. EXECUTIVE SUMMARY

1.1 SYSTEM OVERVIEW

The Kinneloa Irrigation District (District) provides water service to 590 metered customer connections, almost all of which are residential customers. The District was formed in October 1953 by Resolution of the Los Angeles County Board of Supervisors and is governed by a five-member Board of Directors elected by the public.

The water system, which is owned and operated by the District, consists of two groundwater wells, over 90,000 feet of transmission and distribution pipelines, five booster pump stations, and ten water storage reservoirs with a total capacity of approximately four million gallons.

The District's primary water supply source is groundwater pumped from the Raymond Basin aquifer, from which the District has an adjudicated pumping allowance of 516 acre-feet (AF). The District also operates five water tunnels producing groundwater from the mountainous formations that surround the District. In addition, the District also maintains six emergency interconnections with the City of Pasadena to supply water to its reservoirs during an emergency.

1.2 RATE STUDY OVERVIEW

Public retail water agencies in California typically conduct a cost-of-service study every five years to ensure that customers are appropriately charged for water service and to reestablish the cost-of-service nexus that is required by Proposition 218. The District has engaged Water Resources Economics, LLC (WRE) to conduct a comprehensive water rate study, with the following objectives:

- Develop a five-year water rate schedule for Calendar Year (CY) 2025 through CY 2029
- Conduct a cost-of-service analysis based on the most recent data and customer use characteristics
- Evaluate a five-year financial plan scenario to meet financial targets for CY 2025 to CY 2029

1.3 LEGAL REQUIREMENTS

Legal considerations relating to retail water rates in California focus heavily on Proposition 218, which was enacted in 1996 and is now reflected in Article XIII C and Article XIII D of the California Constitution. Proposition 218 states that "property related fees and charges" (which include retail water rates) may not exceed the proportional cost of providing the service to the customer and may not be used for any purpose other than providing said service. The practical implication is that public retail water agencies in California must demonstrate a sufficient nexus between the costs incurred by the agency to provide water service and the rates charged to customers. The primary means by which retail water agencies address this requirement is by conducting a "cost-of-service analysis."

Proposition 218 also affects the rate adoption process by requiring agencies to hold a public hearing to adopt rates. The agency must mail public hearing notices to all customers no fewer than 45 days prior to the public hearing. The public hearing notices must clearly show all proposed rate changes,

provide information on the public hearing date/time/location, and provide instructions on how customers may protest the proposed rate changes. If a majority of customers submit a protest, the proposed rate changes cannot be adopted.

1.4 RATE-SETTING METHODOLOGY

This study was conducted using industry-standard methodology outlined by the American Water Works Association (AWWA) in its *Manual of Water Supply Practices M1: Principles of Water Rates, Fees and Charges, Seventh Edition* (M1 Manual). The rate study process includes the following steps:

1. **Financial Plan**: Annual revenues and expenses are projected over the rate-setting period to determine the magnitude of rate increases needed to maintain financial sufficiency. Financial policies, such as reserve targets, are also evaluated and updated if necessary.
2. **Cost-of-Service Analysis**: Costs are allocated to customers in proportion to use of and burden on the water system. The overall goal is to establish a robust nexus between the costs incurred by an agency and the rates charged to customers, as required by Proposition 218.
3. **Rate Design**: The existing rate structure is evaluated, and potential changes are identified. A multi-year proposed rate schedule is then calculated directly from the results of the financial plan and cost-of-service analysis.
4. **Rate Study Documentation**: A rate study report is developed to document the proposed rate development process. This provides transparency and enhances compliance with Proposition 218 requirements. This document serves as the report for this rate study.

1.5 ADDITIONAL INFORMATION AND DISCLAIMERS

This report summarizes the data, analyses, processes, and results of the District's water rate study. Some important information to keep in mind when reading the report includes the following:

- All study projections are based on the best available data as of April 2024.
- All table values are rounded to the nearest digit shown unless stated otherwise. However, all calculations are based on precise values. Attempting to manually recreate the calculations described in this report from the values displayed in tables may therefore produce slightly different results.
- All current and proposed rates and charges in this report are shown on a monthly basis.

1.6 CURRENT WATER RATES

The District's current water rate structure includes a fixed daily service charge, which is a readiness to serve charge computed based on the actual number of days between meter readings, and a monthly usage charge per hundred cubic feet (ccf) of water usage. The water rates apply to all customers and meter sizes. **Table 1-1** shows the current water rates that were adopted in the two most recent budgets.

Table 1-1: Current Water Rates

Line		As of 1/1/23	As of 1/1/24
1	Daily Service Charge	$2.48	$2.48
2	Monthly Usage Charge ($/ccf)	$4.98	$6.20

1.7 FINANCIAL PLAN

WRE worked closely with District staff and the District's Board of Directors to determine the financial plan scenario that best suits the District's needs. The results and recommendations of the water rate study are driven by the District's financial performance, input from District staff, and feedback and direction from the Board.

FACTORS AFFECTING FINANCIAL PERFORMANCE

The water system's financial performance is driven by the ability of the current water rates to meet the District's funding needs. To maintain financial sufficiency, water rates must fully fund operations and maintenance (O&M) costs, capital improvement plan (CIP) expenditures, and any relevant financial policies, which typically include target reserve balances and debt coverage.

The key factors affecting financial performance include:

- **Substantial capital investment needs over the next five years:** The cost of planned capital projects over the next five years (CY 2025 through CY 2029) is approximately $8.3 million. Key projects include the Brown-Glen to Villa Knolls/Edgecliff Project, the Villa Mesa/Villa Rica and the Lower Pasadena Glen Road pipeline replacement projects.
- **Water demand fluctuations:** The District currently receives over 75 percent of its revenue from water consumption. A reduction in water usage can result in major revenue shortfall for the District. For example, in CY 2023, water usage was over 30 percent lower than the prior year.
- **Reserve policy targets:** The District's current reserve policy includes targets for operating, emergency, replacement, and capital improvement needs. The reserve policy in place allows the District to maintain cash on hand to meet short-term cash flow requirements, to cover unexpected repairs, and to execute CIP projects. WRE proposes that the District revise its reserve policy to be more in line with its operations and risks.

PROPOSED REVENUE ADJUSTMENTS AND DEBT ISSUANCES

Overall annual increases in water rate revenues resulting from rate increases are referred to as "revenue adjustments." WRE worked with the Board and District staff to determine the most appropriate financial plan scenario, which is shown in **Table 1-2**. The proposed financial plan scenario includes five years of revenue adjustments, which are required to maintain financial sufficiency and resiliency, and one debt issuance in CY 2025 to refund the current debt and fund $4.6 million worth of CIP projects.

Table 1-2: Proposed Financial Plan Scenario

Line	Fiscal Year	Revenue Adjustments	Debt Issuance	Debt Refund	Debt Proceeds for CIP
1	CY 2025	19.0%	$5,699,482	$935,169	$4,564,831
2	CY 2026	19.0%	$0		$0
3	CY 2027	9.0%	$0		$0
4	CY 2028	9.0%	$0		$0
5	CY 2029	9.0%	$0		$0

Under this proposed financial plan, the District will meet its reserve targets by year four of the planning period and meet coverage requirements for all years.

1.8 COST-OF-SERVICE ANALYSIS

A cost-of-service analysis is a technical process used to determine the cost of providing water service to the District's customers based on each customer's use of and burden on the water system. The cost-of-service analysis is the basis of the nexus between the costs incurred by the utility to provide water service and the water rates charged to customers, which is a requirement of Proposition 218.

COST-OF-SERVICE METHODOLOGY

The cost-of-service methodology is based on industry standards set forth by AWWA in its M1 Manual; this rate study utilizes the base-extra capacity method. The overall goal of the cost-of-service analysis is to develop "unit costs," which provide the basis from which proposed rates are directly calculated. Note that although the study period spans three years, the cost-of-service analysis is limited to a single representative year referred to as the "test year." The test year in this study is CY 2024. The key steps in conducting a water cost-of-service analysis are outlined below:

- **Revenue requirement determination**: The total rate revenue requirement for the test year is determined based on the results of the proposed financial plan and divided into primary sub-components (operating, capital, etc.).
- **Cost functionalization**: Operating and capital costs are evaluated and assigned to "functional categories" in the water system (e.g., customer service, water supply, distribution, etc.). This provides a proportional breakdown of system costs by functional category.
- **Revenue requirement allocation to cost causation components**: Functionalized costs are allocated to "cost causation components" (e.g., water supply, base delivery, max day delivery, etc.), which is used to attribute customers' use of the system to the costs incurred by the District.
- **Unit cost development**: The rate revenue requirement allocation for each individual cost causation component is divided by the appropriate units of service to establish unit costs for the test year. Unit costs provide the basis from which proposed rates are calculated.

1.9 PROPOSED WATER RATES

WRE worked closely with the Board and District staff to determine the most appropriate water rate structure that meets the District's needs.

PROPOSED RATE STRUCTURE CHANGES

The main objective was to conduct a comprehensive cost-of-service analysis while maintaining as much of the current water rate structure as possible to minimize customer impacts. The District's current rate structure includes a daily service charge and a uniform water usage charge for all customers.

After examining the existing rate methodology, WRE recommends a change to the daily service charge to be based on meter size to reflect the different capacity of each meter size. This rate structure is also consistent with industry standards and Proposition 218's proportionality requirement. Given the District's water supply and customer profile, WRE recommends the District retains the current uniform monthly water usage charge structure.

PROPOSED FIVE-YEAR WATER RATE SCHEDULE

The proposed five-year water rate schedules in this section are based on the proposed rate structure and methodology changes, the updated cost-of-service analysis, and the proposed revenue adjustments. The rate schedule shows the proposed water rates to be implemented in January 2025 through January 2029. **Table 1-3** and **Table 1-4** show the current and proposed daily service charge and water usage charge, respectively.

Table 1-3: Proposed Daily Service Charge

Line	Meter Size	As of 1/1/24	Effective 1/1/25	Effective 1/1/26	Effective 1/1/27	Effective 1/1/28	Effective 1/1/29
1	3/4 inch	$2.48	$2.68	$3.19	$3.48	$3.80	$4.15
2	1 inch	$2.48	$2.68	$3.19	$3.48	$3.80	$4.15
3	1.5 inch	$2.48	$5.04	$6.00	$6.54	$7.13	$7.78
4	2 inch	$2.48	$7.87	$9.37	$10.22	$11.14	$12.15

Table 1-4: Proposed Water Usage Charge

Line	Usage Charge ($/ccf)	As of 1/1/24	Effective 1/1/25	Effective 1/1/26	Effective 1/1/27	Effective 1/1/28	Effective 1/1/29
1	All customers	$6.20	$6.90	$8.22	$8.96	$9.77	$10.65

2. FINANCIAL PLAN

2.1 FINANCIAL PLAN METHODOLOGY

The purpose of a financial plan is to project revenues, expenses, cash flows, reserve balances, and debt coverage over a multi-year period to assess financial sufficiency and performance and to determine the amount of required rate revenue. For this study, the planning period is from CY 2025 through CY 2029; data for CY 2023 and CY 2024 are shown when needed to represent actual or budgeted data inputs. The key steps in developing a financial plan for a water enterprise are below:

- **Revenue projections:** Annual revenues from rates and other miscellaneous sources are projected over the planning period. Rate revenues are projected based on current rates to establish baseline revenues from which the need for additional rate increases can be evaluated.
- **Expense projections:** Annual expenses are projected over the study period, including O&M expenses, debt service, and CIP costs. CIP funding options (grants, debt, etc.) are evaluated.
- **Financial policy evaluation:** Key financial policies include debt coverage requirements and reserve targets. Debt coverage requirements are typically explicitly stated in official agreements on outstanding debt issuances. Reserve targets are typically set by an agency's elected officials and may need to be periodically evaluated and updated.
- **Status quo financial plan projections:** Cash flow, reserve balances, and debt coverage are projected over the study period in the absence of additional rate increases (this scenario is called the "status quo"). Projected reserve balances and debt coverage are then compared to the agency's financial policy requirements and targets. The status quo financial plan provides a baseline to evaluate the need for rate increases.
- **Proposed financial plan projections:** The magnitude and timing of annual proposed revenue increases over the study period are evaluated and determined based on the agency's financial policies, financial performance, and policy objectives. Proposed rate increases (referred to as "revenue adjustments") should generate sufficient revenue to recover the agency's expenses, maintain adequate reserves, and meet all debt coverage requirements. The proposed financial plan determines the total annual rate revenue requirement over the study period.

2.2 REVENUES

CURRENT WATER RATES

The District's current water rate structure includes a fixed daily service charge which is a readiness to serve charge computed on the actual number of days between meter readings, and a monthly usage charge per ccf of water usage. The water rates apply to all customers and meter sizes.

Table 2-1 shows the current water rates shown in the last two most recent annual budgets.

Table 2-1: Current Water Rates

Line		As of 1/1/23	As of 1/1/24
1	Daily Service Charge	$2.48	$2.48
2	Monthly Usage Charge ($/ccf)	$4.98	$6.20

CUSTOMER ACCOUNTS AND USAGE

This section details the customer accounts and water usage for all years of the study, which are referred to as the units of service. Units of service represent the quantity of billing units that are subject to the District's water rates and charges.

Table 2-2 shows the projected number of meters for the study period. District staff provided actual data for CY 2024; this study assumes no growth in metered connections throughout the period. The number of metered connections is the unit of service for the District's daily service charge.

Table 2-2: Projected Customer Accounts (Meters)

Line	Customer Accounts (Meters)	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	All Customers	590	590	590	590	590	590

Table 2-3 shows the water demand growth assumptions for the study period. WRE worked with District staff to determine the most appropriate estimates for annual water usage based on historical trends, expected water usage rebounds from the most recent water reduction, and ongoing conservation messaging.

Table 2-3: Water Demand Growth Assumptions

Line	Water Demand Growth	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	All Customers	Historical average	-1%	-1%	-1%	-1%

Table 2-4 shows the projected water usage for each year. District staff provided estimated water usage for CY 2024. To establish a baseline consumption level for the purpose of projecting future water usage, District staff reviewed the historical five-year and ten-year averages. The baseline consumption level is then projected forward for CY 2026 through 2029 based on the water demand growth assumptions (**Table 2-3**).

Table 2-4: Projected Customer Water Usage (ccf)

Line	Water Usage (ccf)	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	All Customers	257,362	250,000	247,500	245,025	242,575	240,149

REVENUES FROM CURRENT RATES

Table 2-5 shows the calculated water rate revenues for the study period based on the current effective water rates and the projected units of service. The service charge revenue (Line 2) is calculated by multiplying the effective daily service charge (**Table 2-1**) by the projected meter connections (**Table 2-2**) for a period of 365 days. The usage charge revenue (Line 3) is calculated by multiplying the effective water usage charge (**Table 2-1**) by the projected water usage (**Table 2-4**) in each year.

Table 2-5: Calculated Rate Revenues at Current Rates

Line	Calculated Rate Revenues	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	**Rate Revenue**						
2	Service Charge	$534,068	$534,068	$534,068	$534,068	$534,068	$534,068
3	Usage Charge	$1,595,644	$1,550,000	$1,534,500	$1,519,155	$1,503,963	$1,488,924
4	**Total – Rate Revenue**	**$2,129,712**	**$2,084,068**	**$2,068,568**	**$2,053,223**	**$2,038,031**	**$2,022,992**

REVENUE SUMMARY

Table 2-6 shows the summary of projected revenues for the study period. District staff provided the budgeted revenues for CY 2024 and CY 2025; all other years are projected based on the relevant assumptions or calculations. Water rate revenues (Lines 1 and 2) are from Lines 2 and 3 of **Table 2-5**, respectively. Interest-Reserve Fund (Line 4) is calculated based on ending fund balances and a 3% interest rate for CY 2026 and 2027 and a 1% interest rate for CY 2028 and 2029.

Table 2-6: Revenue Summary

Line	Revenues	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	Water Sales - DSC	$531,352	$531,352	$534,068	$534,068	$534,068	$534,068
2	Water Sales - Consumption	$1,595,644	$1,550,000	$1,534,500	$1,519,155	$1,503,963	$1,488,924
3	Interest-Reserve Fund	$39,257	$45,000	$124,080	$78,290	$25,330	$25,833
4	Misc. Income	$0	$0	$0	$0	$0	$0
5	**Total - Revenues**	**$2,166,253**	**$2,126,352**	**$2,192,648**	**$2,131,513**	**$2,063,361**	**$2,048,825**

2.3 OPERATING EXPENSES

Table 2-7 shows the summary of O&M expenses for the study period. District staff provided the budgeted O&M expenses for CY 2024 and CY 2025 and projected O&M expenses for all other years (CY 2026 through CY 2029). As shown, most of the District's O&M expenses are fixed, meaning that the costs do not fluctuate based on the amount of water sold. The only true variable expense is the electricity category, related to running the wells and pump stations. However, not all of the electricity category would be considered variable since power is necessary to maintain other parts of the District's system.

Table 2-7: Operating Expenses

Line	Operating Expenses	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	Leased Water Rights	$0	$0	$0	$0	$0	$0
2	Electricity	$190,859	$209,945	$230,939	$254,033	$279,437	$307,380
3	Maintenance Supplies	$25,000	$25,000	$26,250	$27,563	$28,941	$30,388
4	Material and Labor for Install	$0	$0	$0	$0	$0	$0
5	Safety Equipment	$2,000	$3,000	$3,090	$3,183	$3,278	$3,377
6	Operations & Maintenance Labor	$275,000	$255,000	$265,200	$275,808	$286,840	$298,314
7	Operations & Maintenance OT Non-Emergency	$21,000	$40,000	$41,600	$43,264	$44,995	$46,794
8	Stand-by Compensation	$10,980	$10,950	$10,950	$10,950	$10,950	$10,950
9	Training/Certification	$1,600	$3,000	$3,120	$3,245	$3,375	$3,510
10	Water Treatment/Analysis	$12,000	$12,000	$12,360	$12,731	$13,113	$13,506
11	Water Treatment/Materials	$10,000	$10,000	$10,500	$11,025	$11,576	$12,155
12	Maintenance Contractors	$128,000	$124,000	$128,340	$132,832	$137,481	$142,293
13	SCADA System O&M	$15,000	$15,000	$15,525	$16,068	$16,631	$17,213
14	Repair Contractors - Emergency	$0	$0	$0	$0	$0	$0
15	Equipment Maintenance	$7,500	$15,000	$15,525	$16,068	$16,631	$17,213
16	Vehicle Maintenance	$12,500	$6,000	$6,210	$6,427	$6,652	$6,885
17	Fuel - All Equipment	$20,000	$20,000	$21,000	$22,050	$23,153	$24,310
18	Equipment Rental	$500	$500	$513	$525	$538	$552
19	Insurance-Workers Comp.	$16,000	$17,500	$18,025	$18,566	$19,123	$19,696
20	Insurance-Liability	$32,065	$34,455	$36,177	$37,986	$39,885	$41,880
21	Insurance-Property	$4,746	$4,995	$5,245	$5,507	$5,783	$6,072
22	Insurance-Medical	$75,000	$71,500	$75,075	$78,829	$82,770	$86,909
23	Engineering Services	$115,000	$45,000	$46,125	$47,278	$48,460	$49,672
24	Watermaster Services (Raymond Basin)	$46,795	$19,000	$19,475	$19,962	$20,461	$20,972
25	Executive Officer Salary	$179,220	$190,612	$198,236	$206,166	$214,413	$222,989
26	Administrative Travel	$1,800	$1,800	$1,845	$1,891	$1,938	$1,987
27	BofD Compensation	$9,000	$9,000	$9,000	$9,001	$9,002	$9,003
28	Administrative & Board Exp.	$2,000	$2,500	$2,563	$2,627	$2,692	$2,760
29	B of D Election	$0	$0	$12,500	$0	$0	$0
30	Customer/Public Information	$17,000	$17,000	$17,425	$17,861	$18,307	$18,765
31	PERS - KID	$47,000	$50,000	$52,500	$55,125	$57,881	$60,775
32	Social Security - KID	$39,000	$40,000	$41,200	$42,436	$43,709	$45,020
33	Medicare - KID	$9,500	$9,800	$10,094	$10,397	$10,709	$11,030
34	Office/Computer Supplies	$7,000	$7,000	$7,210	$7,426	$7,649	$7,879
35	Postage/Delivery	$5,000	$5,000	$5,150	$5,305	$5,464	$5,628
36	Professional Dues	$19,910	$20,906	$21,533	$22,179	$22,844	$23,529
37	Legal	$6,000	$6,000	$6,180	$6,365	$6,556	$6,753
38	Telephone	$4,000	$4,000	$4,120	$4,244	$4,371	$4,502
39	Mobile Communications	$2,000	$3,000	$3,090	$3,183	$3,278	$3,377
40	Pagers	$500	$0	$0	$0	$0	$0
41	Internet Service	$1,500	$1,500	$1,545	$1,591	$1,639	$1,688

42	Computer/Software Maintenance	$13,994	$10,550	$10,867	$11,192	$11,528	$11,874
43	Office Equipment Maintenance	$2,500	$2,500	$2,575	$2,652	$2,732	$2,814
44	Accounting Services	$7,700	$7,700	$7,931	$8,169	$8,414	$8,666
45	Office & Accounting Labor	$172,500	$195,000	$201,825	$208,889	$216,200	$223,767
46	Professional Services	$65,000	$15,000	$15,375	$15,759	$16,153	$16,557
47	Contract Services	$22,260	$44,260	$45,809	$47,412	$49,072	$50,789
48	Administrative Fee (FMWD)	$13,193	$13,853	$14,337	$14,839	$15,359	$15,896
49	Permits/Fees	$15,000	$15,000	$15,525	$16,068	$16,631	$17,213
50	Taxes - Use	$500	$500	$518	$536	$554	$574
51	Customer Project Expenses	$0	$0	$0	$0	$0	$0
52	Bank Service Charges	$12,000	$18,000	$18,630	$19,282	$19,957	$20,655
53	Water Mains	$0	$0	$0	$0	$0	$0
54	Water Tunnels	$10,000	$10,000	$10,500	$11,025	$11,576	$12,155
55	Water Treatment Plant	$0	$0	$0	$0	$0	$0
56	Water Meters	$20,000	$25,000	$26,250	$27,563	$28,941	$30,388
57	Electrical/Electronic Equipment	$25,000	$10,000	$10,500	$11,025	$11,576	$12,155
58	Computer/Office Equipment	$2,500	$2,500	$2,575	$2,652	$2,732	$2,814
59	Vehicles	$0	$50,000	$75,000	$0	$0	$0
60	Water Company Facilities	$20,000	$10,000	$0	$0	$0	$0
61	KID Office	$0	$0	$0	$0	$0	$0
62	Booster Pump Replacement	$0	$0	$0	$0	$75,000	$0
63	SCADA System O&M	$10,000	$10,000	$10,500	$11,025	$11,576	$12,155
64	Tools	$3,000	$4,000	$4,120	$4,244	$4,371	$4,502
65	**Total - Expenses**	**$1,787,122**	**$1,753,825**	**$1,858,271**	**$1,852,029**	**$2,012,896**	**$2,028,699**

2.4 DEBT SERVICE

EXISTING AND PROPOSED DEBT SERVICE

Table 2-8 shows the District's annual debt service for the study period. The District has existing debt service payments on a 2015 installment purchase agreement (IPA) of approximately $200,000 each year. The proposed financial plan scenario also includes a new debt issuance in CY 2025 of $5,699,482 (assuming a 5.25% interest rate, a 30-year term, and 3.5% issuance cost). The existing debt will be refunded by the new debt issuance – so the total debt service will be $381,392 per year. This debt issuance results in $4,564,831 million of proceeds used to fund CIP.

Table 2-8: Existing and Proposed Debt Service

Line	Debt Service	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	**Existing Debt Service**						
2	2015 IPA	$200,202	$0	$0	$0	$0	$0
6	**Subtotal**	**$200,202**	**$0**	**$0**	**$0**	**$0**	**$0**
7							
8	**Proposed Debt Service**						
9	Proposed CY 2025 Issuance	$0	$381,392	$381,392	$381,392	$381,392	$381,392
10	**Subtotal**	**$0**	**$381,392**	**$381,392**	**$381,392**	**$381,392**	**$381,392**
11							
12	**Total - Debt Service**	**$200,202**	**$381,392**	**$381,392**	**$381,392**	**$381,392**	**$381,392**

2.5 CAPITAL IMPROVEMENT PLAN

CAPITAL IMPROVEMENT PROJECTS

Table 2-9 shows the District's six-year CIP summary; project costs are inflated by 4% per year starting in CY 2025. Detailed CIP costs are included in the **Appendix** (**Table 5-1**).

Table 2-9: Capital Project Costs Summary

Line	Capital Improvement Projects	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	General Projects	$0	$195,676	$221,728	$184,703	$40,945	$355,681
2	Water Storage Projects	$0	$323,736	$81,120	$0	$0	$121,665
3	Pumping Projects	$0	$326,040	$659,776	$598,990	$0	$0
4	Treatment Projects	$0	$137,540	$91,936	$84,365	$0	$0
5	Spreading Projects	$0	$41,600	$81,120	$0	$0	$0
6	Distribution System Projects - Valves/Hydrants	$0	$46,800	$27,040	$28,122	$29,246	$85,166
7	Distribution System Projects - Mainline	$125,000	$0	$2,238,912	$623,246	$688,754	$979,406
8	**Total - Capital Projects**	**$125,000**	**$1,071,392**	**$3,401,632**	**$1,519,425**	**$758,946**	**$1,541,918**

CAPITAL FINANCING PLAN

Table 2-10 shows the capital financing plan. The proposed debt issuance will provide $4.6 million in debt proceeds, which will fund capital projects in CY 2025 through 2027 (Line 1). All other project costs will be funded by water rates or reserves (Line 2).

Table 2-10: Capital Financing Plan

Line	Capital Financing Plan	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	Debt Funded CIP	$0	$1,071,392	$3,401,632	$91,806	$0	$0
2	Rate Funded CIP	$125,000	$0	$0	$1,427,618	$758,946	$1,541,918
3	**Total - Capital Financing Plan**	**$125,000**	**$1,071,392**	**$3,401,632**	**$1,519,425**	**$758,946**	**$1,541,918**

2.6 FINANCIAL POLICIES

RESERVE POLICY

The District's current reserve policy maintains cash on hand to meet short-term cash imbalances, to execute CIP projects, and to cover unexpected repairs.

The District currently has an adopted reserve policy that consists of the following components:

- Operating Reserve Target: 1 to 2 months of annual operating expenses
- Emergency Target: 5-10% of fixed assets
- Replacement Target: Planned maintenance schedule with a minimum of 5% of fixed assets
- Improvement Target: Projects from Master Plan

WRE proposes several revisions to the District's current reserve policy to be more in line with the District's operation and risk profile as well as industry standards.

- Operating Reserve Target: 25% of annual operating expenses
- Capital Reserve Target: 100% of five-year average CIP costs
- Emergency Reserve Target: Net replacement cost of a major asset
- Rate Stabilization Reserve Target: 10% of rate revenue

The reserve target for the study period ranges from approximately $2.4 to $2.9 million in the District's reserve funds.

DEBT COVERAGE REQUIREMENT

The District's debt coverage requirement is 125% of annual debt service. To meet coverage requirements, net revenues (revenues less operating expenses) must be 125% or more of annual debt service.

2.7 NO REVENUE ADJUSTMENT FINANCIAL PLAN

NO REVENUE ADJUSTMENT FINANCIAL PLAN SCENARIO

Table 2-11 shows the no revenue adjustment financial plan scenario, which assumes no revenue adjustments and no proposed debt issuances. This scenario is used to evaluate the ability of the current water rates to meet the District's financial targets and to determine the need for revenue adjustments.

Table 2-11: No Revenue Adjustment Financial Plan Scenario

Line	Fiscal Year	Revenue Adjustments	Effective Month	Debt Issuance	Debt Proceeds for CIP
1	CY 2025	0.0%	January	$0	$0
2	CY 2026	0.0%	January	$0	$0
3	CY 2027	0.0%	January	$0	$0
4	CY 2028	0.0%	January	$0	$0
5	CY 2029	0.0%	January	$0	$0

NO REVENUE ADJUSTMENT CASH FLOW PROJECTIONS

Table 2-12 shows the cash flow projections for the no revenue adjustment financial plan. Revenues[1] (Lines 1-6) are from **Table 2-6**. Operating expenses (Lines 8-10) are from **Table 2-7**. Net operating revenue (Line 12) is equal to the difference between total revenues (Line 6) and total expenses (Line 10). Debt service (Lines 14-17) is from **Table 2-8**. Rate funded CIP (Line 20) is the total capital projects from **Table 2-10**. The status quo scenario assumes no new debt; all CIP is expected to be rate funded. Net cash flow (Line 23) is equal to the net operating revenue (Line 12) less debt service (Line 17) and rate funded CIP (Line 20). Debt proceeds and debt funded CIP are not included in the cash flow projections.

The net operating revenue in this scenario is positive for all years except CY 2029, meaning that the District's current revenues are sufficient to fund its operating expenses in the near future. However, the net cash flow in the status quo scenario is negative for CY 2025 through CY 2029, meaning that the District's current revenues are not sufficient to fund its debt service and annual CIP.

[1] Interest income (Line 5) is different in the status quo financial plan scenario because it is based on projected fund balances. The status quo scenario results in lower fund balances; therefore, the District has less interest income. **Table 2-6** shows the interest income for the proposed financial plan scenario.

Table 2-12: Projected Cash Flows (No Revenue Adjustment Financial Plan)

Line	Cash Flow Projections	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	**Revenues**						
2	Rate Revenues at Existing Rates	$2,126,996	$2,081,352	$2,068,568	$2,053,223	$2,038,031	$2,022,992
3	Revenue Adjustments	$0	$0	$0	$0	$0	$0
4	Other Revenues	$0	$0	$0	$0	$0	$0
5	Interest Income	$39,257	$45,000	$0	$0	$0	$0
6	**Subtotal - Revenues**	**$2,166,253**	**$2,126,352**	**$2,068,568**	**$2,053,223**	**$2,038,031**	**$2,022,992**
7							
8	**Expenses**						
9	Operating Expenses	$1,787,122	$1,753,825	$1,858,271	$1,852,029	$2,012,896	$2,028,699
10	**Subtotal - Expenses**	**$1,787,122**	**$1,753,825**	**$1,858,271**	**$1,852,029**	**$2,012,896**	**$2,028,699**
11							
12	**Net Operating Revenue**	**$379,131**	**$372,527**	**$210,297**	**$201,194**	**$25,135**	**($5,707)**
13							
14	**Debt Service**						
15	Existing Debt Service	$200,202	$200,202	$200,202	$200,202	$200,202	$200,202
16	Proposed Debt Service	$0	$0	$0	$0	$0	$0
17	**Subtotal - Debt Service**	**$200,202**	**$200,202**	**$200,202**	**$200,202**	**$200,202**	**$200,202**
18							
19	**Capital Projects**						
20	Rate Funded CIP	$125,000	$1,071,392	$3,401,632	$1,519,425	$758,946	$1,541,918
21	**Subtotal - Capital Projects**	**$125,000**	**$1,071,392**	**$3,401,632**	**$1,519,425**	**$758,946**	**$1,541,918**
22							
23	**Net Cash Flow**	**$53,929**	**($899,067)**	**($3,391,537)**	**($1,518,433)**	**($934,013)**	**($1,747,827)**

NO REVENUE ADJUSTMENT FUND BALANCE PROJECTIONS

Table 2-13 shows the fund balance projections for the no revenue adjustment financial plan. Based on the sources (revenues) and uses (operating expenses, debt service, and CIP) of funds, the District's fund balances will be negative by the end of CY 2026. At the end of the study period, the District's fund balances will be approximately negative $6.9 million in CY 2029, from a starting balance of $1.6 million in CY 2024. This represents a net loss of $8.5 million in six years.

Table 2-13: Projected Fund Balances (No Revenue Adjustment Financial Plan)

Line	Fund Balance Projections	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	**Beginning Balance**	**$1,558,030**	**$1,611,959**	**$712,892**	**($2,678,646)**	**($4,197,078)**	**($5,131,091)**
2							
3	**Sources of Funds**						
4	Rate Revenues at Existing Rates	$2,126,996	$2,081,352	$2,068,568	$2,053,223	$2,038,031	$2,022,992
5	Revenue Adjustments	$0	$0	$0	$0	$0	$0
6	Other Revenues	$0	$0	$0	$0	$0	$0
7	Debt Proceeds for CIP	$0	$0	$0	$0	$0	$0
8	Interest Income	$39,257	$45,000	$0	$0	$0	$0
11	**Subtotal**	**$2,166,253**	**$2,126,352**	**$2,068,568**	**$2,053,223**	**$2,038,031**	**$2,022,992**
12							
13	**Uses of Funds**						
14	Operating Expenses	$1,787,122	$1,753,825	$1,858,271	$1,852,029	$2,012,896	$2,028,699
15	Existing Debt Service	$200,202	$200,202	$200,202	$200,202	$200,202	$200,202
16	Debt Funded CIP	$0	$0	$0	$0	$0	$0
17	Rate Funded CIP	$125,000	$1,071,392	$3,401,632	$1,519,425	$758,946	$1,541,918
18	**Subtotal**	**$2,112,324**	**$3,025,419**	**$5,460,105**	**$3,571,656**	**$2,972,044**	**$3,770,819**
19							
20	**Ending Balance**	**$1,611,959**	**$712,892**	**($2,678,646)**	**($4,197,078)**	**($5,131,091)**	**($6,878,918)**

NO REVENUE ADJUSTMENT FINANCIAL PERFORMANCE

The District's financial performance is evaluated based on the reserve targets and debt coverage requirements, as shown in **Table 2-14**. Under the status quo financial plan, the District will not meet its reserve targets from CY 2024 to CY 2029. The District will not be able to meet its debt coverage requirements in CY 2026 through 2029 without any revenue adjustments. Fund balances and debt coverage requirements are the District's constraining factors during the study period.

Table 2-14: Forecasted Financial Performance (No Revenue Adjustment Financial Plan)

Line	Financial Performance	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	**Reserve Policy**						
2	Operating	$446,781	$438,456	$464,568	$463,007	$503,224	$507,175
3	Capital Replacement	$1,375,279	$1,658,663	$1,686,060	$1,157,395	$1,088,904	$1,074,464
4	Emergency	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000
5	Rate Stabilization	$212,700	$208,135	$206,857	$205,322	$203,803	$202,299
6	Combined Reserve Target	$2,534,759	$2,805,254	$2,857,485	$2,325,724	$2,295,931	$2,283,938
7	Combined Reserves	$1,611,959	$712,892	($2,678,646)	($4,197,078)	($5,131,091)	($6,878,918)
8	Meets Target?	No	No	No	No	No	No
9							
10	**Debt Coverage**						
11	Required Debt Coverage	125%	125%	125%	125%	125%	125%
12	Calculated Debt Coverage	189%	186%	105%	100%	13%	-3%
13	Meets Target?	Yes	Yes	No	No	No	No

Figure 2-1 shows the comparison of revenues and the revenue requirement for the no revenue adjustment scenario. The stacked bars represent the revenue requirements, or costs: blue for O&M expenses, green for debt service, and gray for rate funded CIP. The District will not be adding to its reserves (black bars) in this scenario. The current revenue, shown as a solid line, is lower than the revenue requirements, meaning that revenues are insufficient to fund necessary costs.

Figure 2-1: Revenue Requirements vs. Revenues (No Revenue Adjustment Financial Plan)

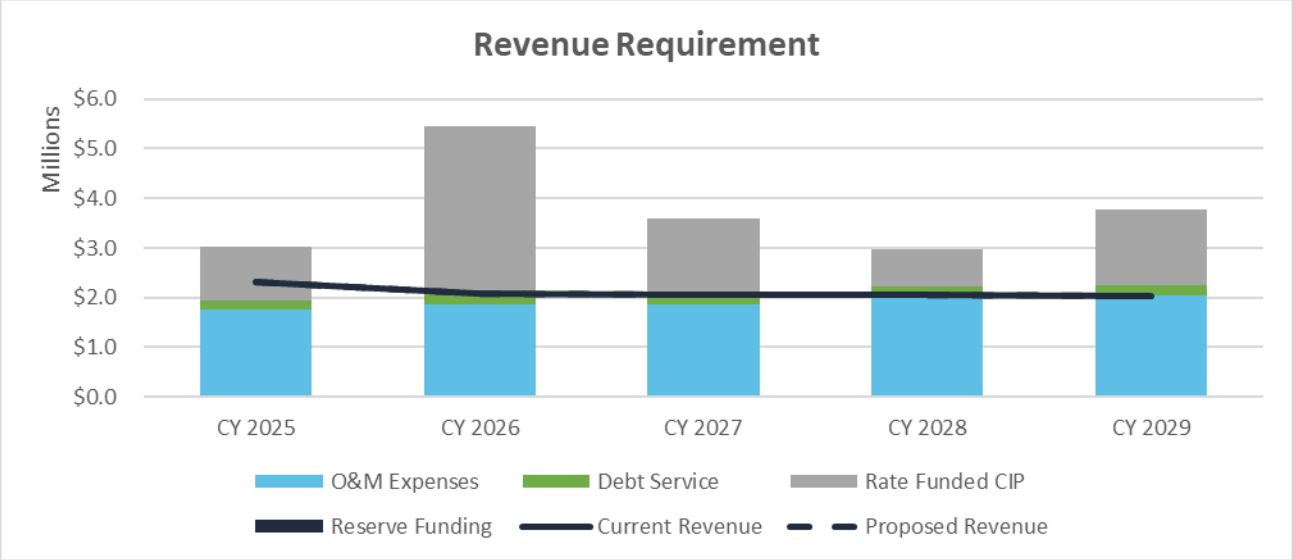


Figure 2-2 shows the debt coverage projections in the status quo financial plan. The required debt coverage (dashed line) is equal to 125%. The District will not meet its debt coverage requirements starting in CY 2026 in this scenario.

Figure 2-2: Projected Debt Coverage (No Revenue Adjustment Financial Plan)

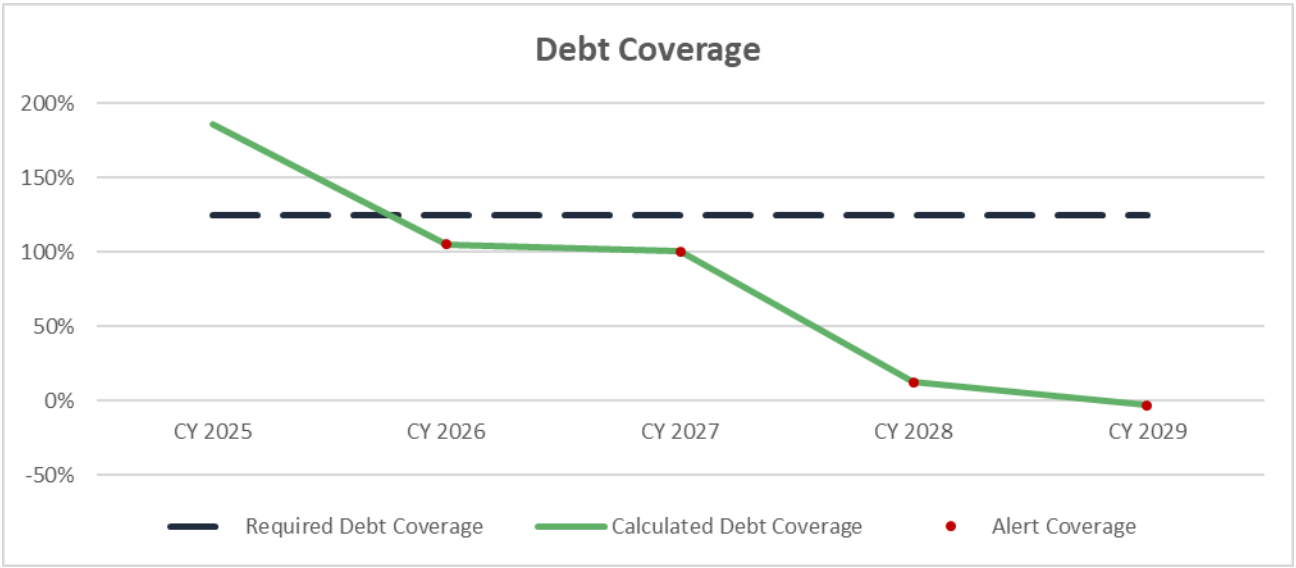
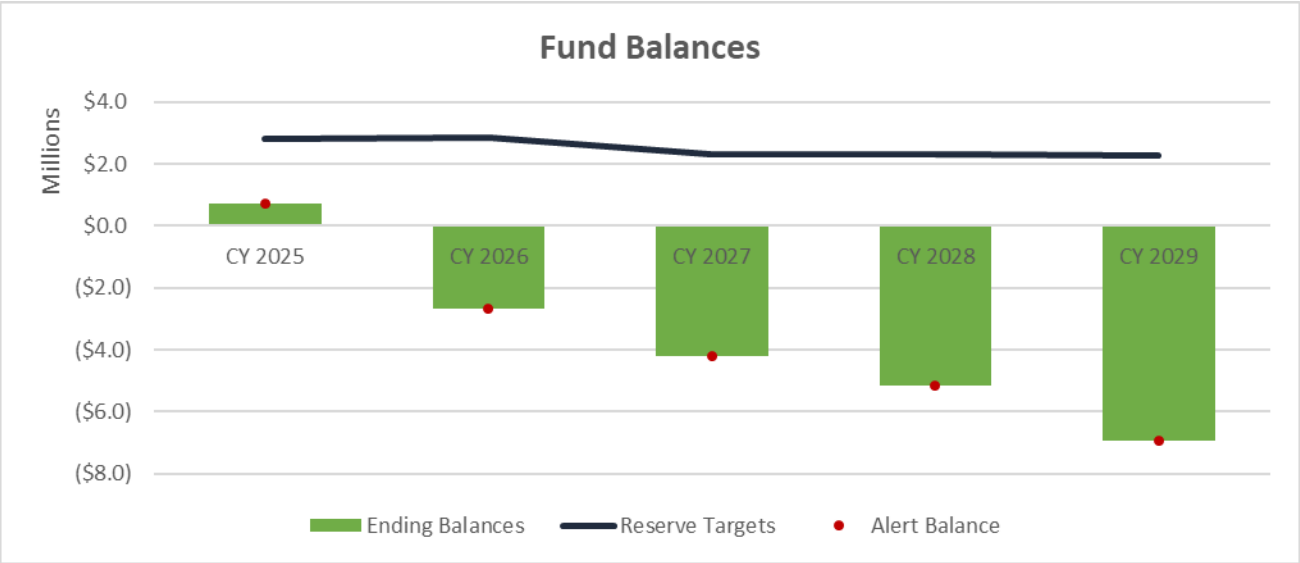


Figure 2-3 shows the fund balance projections in the status quo financial plan. The District's ending balance (green bars) will not meet the reserve targets (solid line) from CY 2025 through CY 2029. The District's fund balances will be negative by CY 2026.

Figure 2-3: Projected Fund Balances (No Revenue Adjustment Financial Plan)



2.8 PROPOSED FINANCIAL PLAN

PROPOSED FINANCIAL PLAN SCENARIO

The proposed financial plan includes five years of revenue adjustments and a debt issuance in CY 2025, shown in **Table 2-15**. These adjustments are needed to maintain the District's financial sufficiency and were developed based on direction from the District's Board.

Table 2-15: Proposed Financial Plan Scenario

Line	Fiscal Year	Revenue Adjustments	Effective Month	Debt Issuance	Debt Proceeds for CIP
1	CY 2025	19.0%	January	$5,699,482	$4,564,831
2	CY 2026	19.0%	January	$0	$0
3	CY 2027	9.0%	January	$0	$0
4	CY 2028	9.0%	January	$0	$0
5	CY 2029	9.0%	January	$0	$0

PROPOSED CASH FLOW PROJECTIONS

Table 2-16 shows the cash flow projections for the proposed financial plan. Revenues (Lines 1-6) are from **Table 2-6**, with the exception of revenue adjustments (Line 2), which are based on the adjustments shown in **Table 2-15**. Operating expenses (Lines 8-10) are from **Table 2-7**. Net operating revenue (Line 12) is equal to the difference between total revenues (Line 6) and total expenses (Line 10). Debt service (Lines 14-17) is from **Table 2-8**. Rate funded CIP (Line 20) is from **Table 2-10**. Net cash flow (Line 23) is equal to the net operating revenue (Line 12) less debt service (Line 17) and rate funded CIP (Line 20). Debt proceeds and debt funded CIP are not included in the cash flow projections, since they are accounted for in the rate funded CIP projection numbers.

Table 2-16: Projected Cash Flows (Proposed Financial Plan)

Line	Cash Flow Projections	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	**Revenues**						
2	Rate Revenues at Existing Rates	$2,126,996	$2,081,352	$2,068,568	$2,053,223	$2,038,031	$2,022,992
3	Revenue Adjustments	$0	$395,457	$860,731	$1,116,027	$1,390,892	$1,686,954
4	Other Revenues	$0	$0	$0	$0	$0	$0
5	Interest Income	$39,257	$45,000	$124,080	$78,368	$25,367	$25,789
6	**Subtotal - Revenues**	**$2,166,253**	**$2,521,809**	**$3,053,379**	**$3,247,619**	**$3,454,290**	**$3,735,734**
7							
8	**Expenses**						
9	Operating Expenses	$1,787,122	$1,753,825	$1,858,271	$1,852,029	$2,012,896	$2,028,699
10	**Subtotal - Expenses**	**$1,787,122**	**$1,753,825**	**$1,858,271**	**$1,852,029**	**$2,012,896**	**$2,028,699**
11							
12	**Net Operating Revenue**	**$379,131**	**$767,984**	**$1,195,107**	**$1,395,590**	**$1,441,394**	**$1,707,035**
13							
14	**Debt Service**						
15	Existing Debt Service	$200,202	$0	$0	$0	$0	$0
16	Proposed Debt Service	$0	$381,392	$381,392	$381,392	$381,392	$381,392
17	**Subtotal - Debt Service**	**$200,202**	**$381,392**	**$381,392**	**$381,392**	**$381,392**	**$381,392**
18							
19	**Capital Projects**						
20	Rate Funded CIP	$125,000	$0	$0	$1,427,618	$758,946	$1,541,918
21	**Subtotal - Capital Projects**	**$125,000**	**$0**	**$0**	**$1,427,618**	**$758,946**	**$1,541,918**
22							
23	**Net Cash Flow**	**$53,929**	**$386,592**	**$813,716**	**($413,421)**	**$301,056**	**($216,274)**

PROPOSED FUND BALANCE PROJECTIONS

Table 2-17 shows the fund balance projections for the proposed financial plan. Based on the sources (revenues, revenue adjustments, debt proceeds) and uses (operating expenses, debt service, and CIP) of funds, the District's fund balances will be approximately $2.48 million at the end of the study in CY 2029.

Table 2-17: Projected Fund Balances (Proposed Financial Plan)

Line	Fund Balance Projections	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	**Beginning Balance**	**$1,558,030**	**$1,611,959**	**$5,491,989**	**$2,904,073**	**$2,398,846**	**$2,699,902**
2							
3	**Sources of Funds**						
4	Rate Revenues at Existing Rates	$2,126,996	$2,081,352	$2,068,568	$2,053,223	$2,038,031	$2,022,992
5	Revenue Adjustments	$0	$395,457	$860,731	$1,116,027	$1,390,892	$1,686,954
6	Other Revenues	$0	$0	$0	$0	$0	$0
7	Debt Proceeds for CIP	$0	$4,564,831	$0	$0	$0	$0
8	Interest Income	$39,257	$45,000	$124,080	$78,368	$25,367	$25,789
11	**Subtotal**	**$2,166,253**	**$7,086,640**	**$3,053,379**	**$3,247,619**	**$3,454,290**	**$3,735,734**
12							
13	**Uses of Funds**						
14	Operating Expenses	$1,787,122	$1,753,825	$1,858,271	$1,852,029	$2,012,896	$2,028,699
15	Existing Debt Service	$200,202	$0	$0	$0	$0	$0
16	Proposed Debt Service	$0	$381,392	$381,392	$381,392	$381,392	$381,392
17	Debt Funded CIP	$0	$1,071,392	$3,401,632	$91,806	$0	$0
18	Rate Funded CIP	$125,000	$0	$0	$1,427,618	$758,946	$1,541,918
19	**Subtotal**	**$2,112,324**	**$3,206,609**	**$5,641,295**	**$3,752,845**	**$3,153,234**	**$3,952,008**
20							
21	**Ending Balance**	**$1,611,959**	**$5,491,989**	**$2,904,073**	**$2,398,846**	**$2,699,902**	**$2,483,628**

PROPOSED FINANCIAL PERFORMANCE

Table 2-18 shows the forecasted financial performance for the proposed financial plan. Under this plan, the District will meet its reserve targets by CY 2028. The District will be able to meet its debt coverage requirements in all years with the proposed revenue adjustments.

Table 2-18: Forecasted Financial Performance (Proposed Financial Plan)

Line	Financial Performance	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	**Reserve Policy**						
2	Operating	$446,781	$438,456	$464,568	$463,007	$503,224	$507,175
3	Capital Replacement	$1,375,279	$1,658,663	$1,686,060	$1,157,395	$1,088,904	$1,074,464
4	Emergency	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000
5	Rate Stabilization	$212,700	$247,681	$292,930	$316,925	$342,892	$370,995
6	Combined Reserve Target	$2,534,759	$2,844,800	$2,943,558	$2,437,327	$2,435,020	$2,452,633
7	Combined Reserves	$1,611,959	$5,491,989	$2,904,073	$2,398,846	$2,699,902	$2,483,628
8	Meets Target?	No	Yes	No	No	Yes	Yes
9							
10	**Debt Coverage**						
11	Required Debt Coverage	125%	125%	125%	125%	125%	125%
12	Calculated Debt Coverage	189%	201%	313%	366%	378%	448%
13	Meets Target?	Yes	Yes	Yes	Yes	Yes	Yes

Figure 2-4 shows the comparison of revenues and the revenue requirement for the proposed scenario. The stacked bars represent the revenue requirements, or costs. The District will add to its reserves (black bars) in this scenario. The current revenue, shown as a solid line, is lower than the revenue requirements. The proposed revenue, shown as a dotted line, is greater than the revenue requirements (except for CY 2027 and CY 2029), meaning that the District's revenues are able to sufficiently fund its expenses.

Figure 2-4: Revenue Requirements vs. Revenues (Proposed Financial Plan)

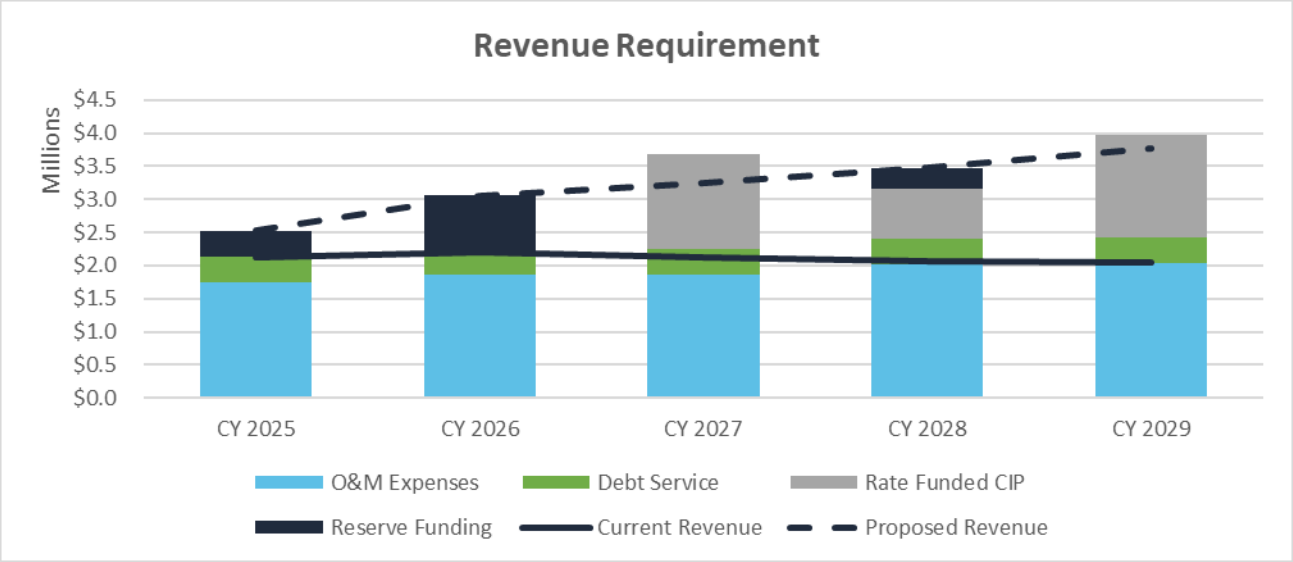


Figure 2-5 shows the debt coverage projections in the proposed financial plan. The required debt coverage (dashed line) is equal to 125%. The District is expected to meet its debt coverage requirements for all years of this scenario.

Figure 2-5: Projected Debt Coverage (Proposed Financial Plan)

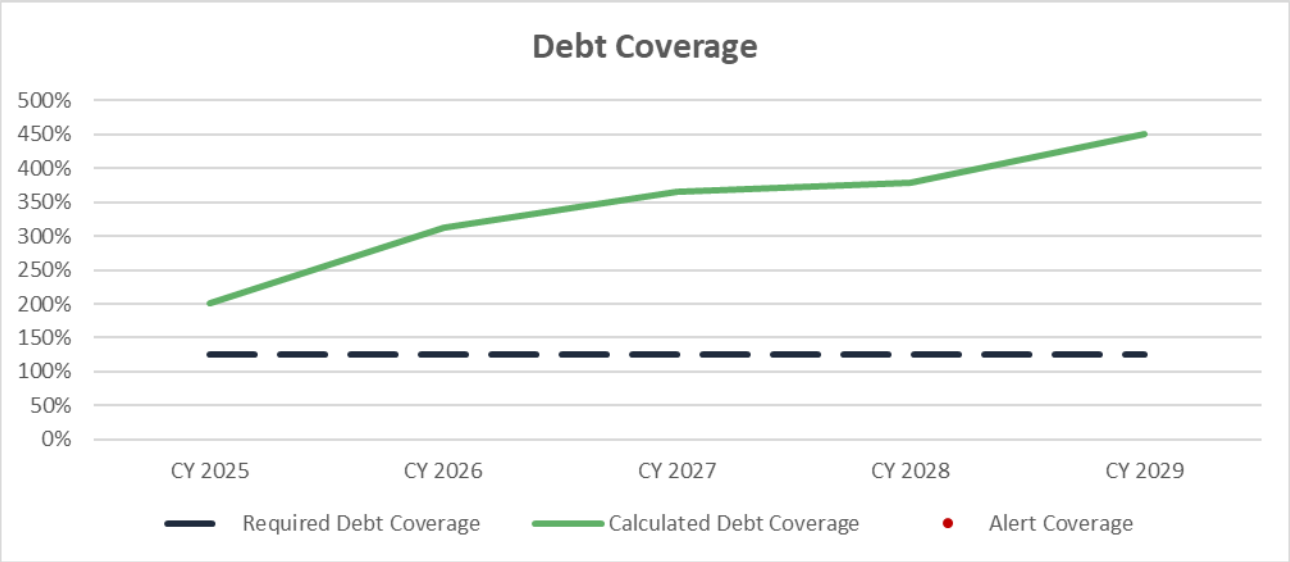
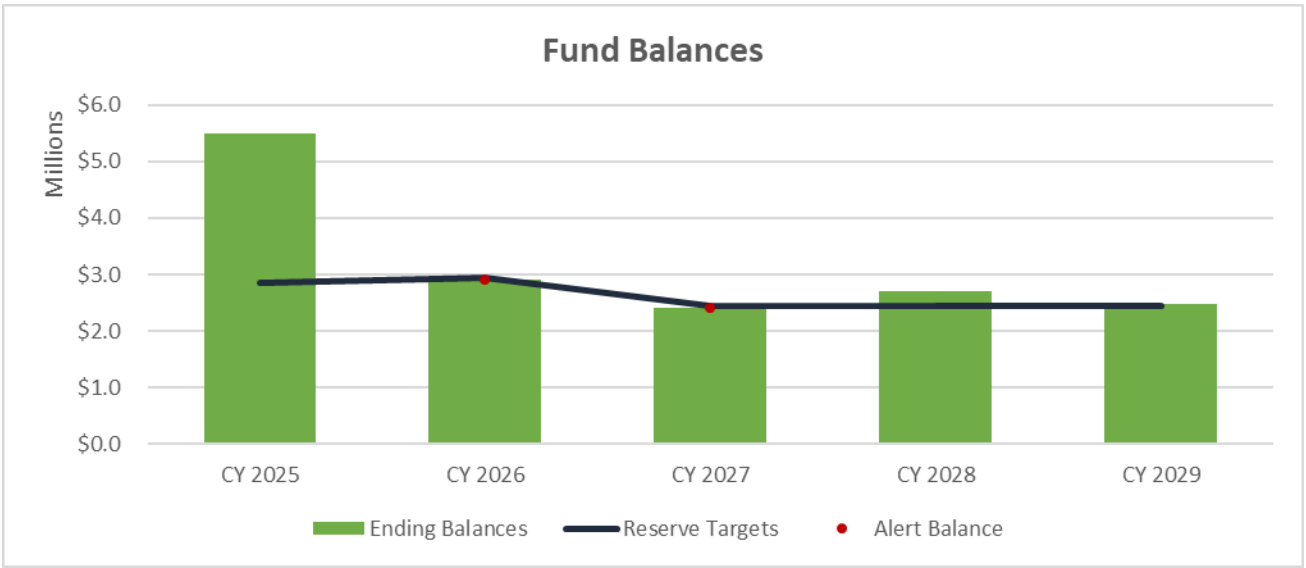


Figure 2-6 shows the fund balance projections in the proposed financial plan. The District's ending balance (green bars) will meet the reserve targets (solid line) by CY 2028.

Figure 2-6: Projected Fund Balances (Proposed Financial Plan)



3. COST-OF-SERVICE ANALYSIS

3.1 COST-OF-SERVICE METHODOLOGY

A cost-of-service analysis was conducted to allocate CY 2024 rate revenue requirement to customers in proportion to use of and burden on the District's water system. The overall goal of the cost-of-service analysis is to develop "unit costs," which provide the basis from which proposed rates are directly calculated from. Note that although the study period spans five years, the cost-of-service analysis is limited to a single representative year referred to as the "test year." The test year in this study is CY 2024.

The cost-of-service analysis is "revenue neutral," meaning that the resulting cost-of-service based rates collect the same amount of revenue as the District expects to collect in CY 2024. The revenue neutral unit costs determine revenue neutral rates, which are then adjusted based on the proposed financial plan increases to arrive at the proposed water rates for five years. All values presented in this section pertain to CY 2024 and are revenue neutral unless stated otherwise.

The key steps in conducting a water cost-of-service analysis are outlined below:

- **Revenue requirement determination**: The total rate revenue requirement for the test year is determined based on the results of the proposed financial plan and divided into primary sub-components (operating, capital, etc.).
- **Cost functionalization**: Operating and capital costs are evaluated and assigned to "functional categories" in the water system (e.g., customer service, water supply, distribution, etc.). This provides a proportional breakdown of system costs by functional category.
- **Revenue requirement allocation to cost causation components**: Functionalized costs are allocated to "cost causation components" (e.g., water supply, base delivery, max day delivery, etc.), which is used to attribute customers' use of the system to the costs incurred by the District.
- **Unit cost development**: The rate revenue requirement allocation for each individual cost causation component is divided by the appropriate units of service to establish unit costs for the test year. Unit costs provide the basis from which proposed rates are calculated.

3.2 REVENUE REQUIREMENT

REVENUE REQUIREMENT DETERMINATION

The total rate revenue requirement for the test year, CY 2024, is based on the financial plan projections (**Table 2-16**) and is allocated between the Operating and Capital, as shown in **Table 3-1**. The Operating revenue requirement consists of operating expenses (Line 2), interest income (Line 9) and adjustments for cash from reserves (Line 13; from **Table 2-16**, Line 23). The Capital revenue requirement includes debt service (Line 3) and rate funded CIP (Line 4). The total revenue requirement (Line 16) is equal to the amount of rate revenue collected in CY 2024 (**Table 2-16**, Line 2).

Table 3-1: CY 2024 Revenue Requirement

Line	CY 2024 Revenue Requirement	Operating	Capital	Total
1	**Revenue Requirements**			
2	Operating Expenses	$1,787,122		$1,787,122
3	Debt Service		$200,202	$200,202
4	Rate Funded CIP		$125,000	$125,000
5	**Subtotal**	**$1,787,122**	**$325,202**	**$2,112,324**
6				
7	**Revenue Offsets**			
8	Other Revenues	$0		$0
9	Interest Income	($39,257)		($39,257)
10	**Subtotal**	**($39,257)**	**$0**	**($39,257)**
11				
12	**Adjustments**			
13	Cash to/(from) Reserves	$53,929		$53,929
14	**Subtotal**	**$53,929**	**$0**	**$53,929**
15				
16	**Total - Revenue Requirement**	**$1,801,794**	**$325,202**	**$2,126,996**

3.3 COST FUNCTIONALIZATION

FUNCTIONAL CATEGORY DEFINITIONS

After determining the revenue requirement, the next step in the cost-of-service analysis is to allocate the District's costs into various functional categories. These categories represent the main functions of the District's water system and include:

- **Meters**: costs of meter maintenance and replacement
- **Customer**: costs related to customer service and billing
- **Fire Service**: costs related to providing fire protection services
- **Supply**: costs of supplying water from local sources to serve the District's customers
- **Treatment**: costs related to the treatment of water to potable standards
- **Pumping**: costs relating to pumping water to higher elevations
- **Storage**: costs related to water storage facilities (such as reservoirs and tanks)
- **Distribution:** costs related to the transmission and distribution of water through the District's water system
- **General**: costs that are not directly attributable to any other functional category

OPERATING COST FUNCTIONALIZATION

WRE worked closely with District staff to evaluate and allocate the operating expenses for CY 2024 (**Table 2-7**) to the most closely associated functional categories within the water system, as shown in **Table 3-2**. The detailed allocation of the operating expense budget to the functional categories is included in the **Appendix** (**Table 5-2**).

Table 3-2: Operating Costs by System Functions

Line	Cost Functions	Operating Expenses	Percent of Total
1	Supply	$59,988	3.4%
2	Distribution	$414,568	23.2%
3	Treatment	$137,078	7.7%
4	Pumping	$198,359	11.1%
5	Storage	$85,333	4.8%
6	Meter	$20,000	1.1%
7	Fire Service	$0	0.0%
8	Customer	$34,000	1.9%
9	General	$837,795	46.9%
10	**Total**	**$1,787,122**	**100.0%**

CAPITAL ASSET FUNCTIONALIZATION

WRE worked with District staff to evaluate and allocate the District's current capital assets to the most closely associated functional categories within the water system, as shown in **Table 3-3**. The detailed allocation of the current capital assets to the functional categories is included in the **Appendix** (**Table 5-3**).

It is standard practice in most water cost-of-service studies to functionalize current capital assets rather than planned CIP costs, since the latter can fluctuate more significantly from year to year. The current capital asset base provides a more stable representation of long-term capital needs and their associated costs. The asset valuation methodology used in this study is Replacement Cost, since the District does not have reliable depreciation data on all the system assets.

Table 3-3: Capital Assets by System Functions

Line	Cost Functions	Capital Assets (Replacement Cost)	Percent of Total
1	Supply	$12,175,317	12.2%
2	Distribution	$43,555,000	43.5%
3	Treatment	$780,000	0.8%
4	Pumping	$3,595,000	3.6%
5	Storage	$35,435,000	35.4%
6	Meter	$477,200	0.5%
7	Fire Service	$2,775,000	2.8%
8	Customer	$0	0.0%
9	General	$1,345,000	1.3%
10	**Total**	**$100,137,517**	**100.0%**

3.4 COST CAUSATION COMPONENTS

COST COMPONENT DEFINITIONS

While the functional categories represent the costs of system functions, cost causation components represent the reasons for why and how those costs are incurred within the system (thus, cost causation). Cost causation components will be referred to as cost components in this report. The next step of the cost-of-service analysis is to allocate the Operating, Capital, and Revenue Offsets in the functional categories between the cost components, most of which directly correspond to a single functional category.

The cost components in this study include the following:

- **Meter**: directly corresponds to the Meter functional category
- **Customer**: directly corresponds to the Customer functional category
- **Fire Service**: directly corresponds to the Fire functional category
- **Supply**: directly corresponds to the Supply functional category
- **Average Day Demand (Base)**: costs associated with delivering water to customers during average water demand conditions (average daily use)
- **Maximum Day Demand (Max Day)**: costs associated with delivering water to customers during maximum day demand conditions (water usage during highest day of year)
- **Maximum Hour Demand (Max Hour)**: costs associated with delivering water to customer during maximum hour demand conditions (water usage during highest hour of highest day)
- **General**: directly corresponds to the General functional category

SYSTEM-WIDE MAXIMUM CAPACITY FACTORS

System-wide maximum capacity factors for the District's water system, shown in **Table 3-4**, are used to allocate costs associated with the Treatment, Pumping, Storage, and Distribution functional categories to the Base, Max Day, and Max Hour cost components. Maximum capacity factors represent the ratio of maximum to average water demand over the course of one year for the entire system. This provides a basis to identify costs incurred to provide water service during average demand conditions and to provide additional capacity during maximum demand conditions.

District staff provided the average day, maximum day, and maximum hour demand capacity factors, which are normalized based on average day demand (meaning that the average day demand is always equal to 1.00).

The percentage allocations to the Base, Max Day, and Max Hour cost components based on the average day, maximum day, and maximum demand capacity factors are calculated as follows:

- Average day demand is allocated entirely to Base
- Max day demand is allocated proportionately to Base[2] and Max Day[3]

[2] 1.00/2.00 = 50.0%
[3] (2.00-1.00)/2.00 = 50.0%

- Max hour demand is allocated proportionately to Base[4], Max Day[5], and Max Hour[6]

Table 3-4: System-Wide Maximum Capacity Allocation

Line	System-Wide Maximum Capacity	Factor	Base	Max Day	Max Hour	Total
1	Average Day Demand	1.00	100.0%	0.0%	0.0%	100.0%
2	Max Day Demand	2.00	50.0%	50.0%	0.0%	100.0%
3	Max Hour Demand	5.00	20.0%	20.0%	60.0%	100.0%

[4] 1.00/5.00 = 20.0%
[5] (2.00-1.00)/5.00 = 20.0%
[6] (5.00-2.00)/5.00 = 60.0%

COST COMPONENT ALLOCATION FACTORS

Table 3-5 shows the factors used to allocate the functionalized costs to the cost components. For the cost components that directly correlate to a functional category (Meter, Customer, Fire Service, Supply, and General), the functionalized costs are allocated entirely to the matching cost component. Treatment, Pumping, and Storage facilities (Lines 3-5) are sized based on maximum day demand and are allocated based on the Max Day maximum capacity factor (**Table 3-4**, Line 2). Distribution facilities (Line 2) are sized based on maximum hour demand and are allocated based on the Max Hour maximum capacity factors (**Table 3-4**, Line 3).

Table 3-5: System Function Allocation to Cost Components

Line	Cost Functions	Meter	Customer	Fire	Base	Max Day	Max Hour	Supply	General	Total
1	Supply	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%	0.0%	100.0%
2	Distribution	0.0%	0.0%	0.0%	20.0%	20.0%	60.0%	0.0%	0.0%	100.0%
3	Treatment	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	100.0%
4	Pumping	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	100.0%
5	Storage	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	100.0%
6	Meter	100%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
7	Fire Service	0.0%	0.0%	100%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
8	Customer	0.0%	100%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
9	General	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%	100.0%

OPERATING COST COMPONENT ALLOCATION

Table 3-6 shows the operating cost allocation by cost component. The functionalized operating expenses from **Table 3-2** are allocated based on the cost component allocation factors in **Table 3-5**. The operating allocation (Line 11) is derived from the total operating expenses by cost component (Line 10) and represents the proportion of the Operating revenue requirement that will be allocated to each cost component.

Table 3-6: Operating Allocation by Cost Component

Line	Operating Expenses	Meter	Customer	Fire	Base	Max Day	Max Hour	Supply	General	Total
1	Supply	$0	$0	$0	$0	$0	$0	$59,988	$0	$59,988
2	Distribution	$0	$0	$0	$82,914	$82,914	$248,741	$0	$0	$414,568
3	Treatment	$0	$0	$0	$68,539	$68,539	$0	$0	$0	$137,078
4	Pumping	$0	$0	$0	$99,180	$99,180	$0	$0	$0	$198,359
5	Storage	$0	$0	$0	$42,667	$42,667	$0	$0	$0	$85,333
6	Meter	$20,000	$0	$0	$0	$0	$0	$0	$0	$20,000
7	Fire Service	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Customer	$0	$34,000	$0	$0	$0	$0	$0	$0	$34,000
9	General	$0	$0	$0	$0	$0	$0	$0	$837,795	$837,795
10	**Total - Operating Expenses**	**$20,000**	**$34,000**	**$0**	**$293,299**	**$293,299**	**$248,741**	**$59,988**	**$837,795**	**$1,787,122**
11	**Operating Cost Allocation**	**1.1%**	**1.9%**	**0.0%**	**16.4%**	**16.4%**	**13.9%**	**3.4%**	**46.9%**	**100.0%**

CAPITAL COST COMPONENT ALLOCATION

Table 3-7 shows the capital cost allocation by cost component. The functionalized capital assets from **Table 3-3** are allocated based on the cost component allocation factors in **Table 3-5**. The capital allocation (Line 11) is derived from the total capital asset value by cost component (Line 10) and represents the proportion of the Capital revenue requirement that will be allocated to each cost component.

Table 3-7: Capital Allocation by Cost Component

Line	Capital Assets (RC)	Meter	Customer	Fire	Base	Max Day	Max Hour	Supply	General	Total
1	Supply	$0	$0	$0	$0	$0	$0	$12,175,317	$0	$12,175,317
2	Distribution	$0	$0	$0	$8,711,000	$8,711,000	$26,133,000	$0	$0	$43,555,000
3	Treatment	$0	$0	$0	$390,000	$390,000	$0	$0	$0	$780,000
4	Pumping	$0	$0	$0	$1,797,500	$1,797,500	$0	$0	$0	$3,595,000
5	Storage	$0	$0	$0	$17,717,500	$17,717,500	$0	$0	$0	$35,435,000
6	Meter	$477,200	$0	$0	$0	$0	$0	$0	$0	$477,200
7	Fire Service	$0	$0	$2,775,000	$0	$0	$0	$0	$0	$2,775,000
8	Customer	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	General	$0	$0	$0	$0	$0	$0	$0	$1,345,000	$1,345,000
10	**Total - Capital Fixed Assets**	**$477,200**	**$0**	**$2,775,000**	**$28,616,000**	**$28,616,000**	**$26,133,000**	**$12,175,317**	**$1,345,000**	**$100,137,517**
11	**Capital Cost Allocation**	**0.5%**	**0.0%**	**2.8%**	**28.6%**	**28.6%**	**26.1%**	**12.2%**	**1.3%**	**100.0%**

3.5 SYSTEM CAPACITY ALLOCATIONS

The costs for certain system functions are based on the capacity requirements related to that function. For example, meter-related costs are allocated based on meter capacity, which is defined by the safe maximum operating capacity of each meter size. This section describes and defines capacity requirements and allocations relating to water meters.

EQUIVALENT METER UNITS

Costs related to meter capacity increase based on meter size. Therefore, equivalent meter units are calculated to provide a basis from which to allocate costs in proportion to meter size. Equivalent meter calculations are shown in **Table 3-8**.

Equivalent meters are calculated based on meter capacity ratios, which represent the safe operating capacity of a water meter relative to the base meter size. For this study, the base meter size is a 1" meter, which is the most common meter size in the District's system. Capacity in gallons per minute (gpm) is derived from the AWWA M1 Manual. The meter ratio for a 1.5" meter is 2.00, which means that the capacity of a 1.5" meter is two times that of a 1" meter.

The number of meters is from **Table 2-2**. Equivalent meters are calculated by multiplying the meter counts by the meter ratio in each size.

Table 3-8: Equivalent Meter Units

Line	Meter Size	Safe Operating Capacity (gpm)	Meter Ratio	Meter Counts	Meter Equivalents
1	3/4 inch	30	1.00	145	145
2	1 inch	50	1.00	278	278
3	1.5 inch	100	2.00	127	254
4	2 inch	160	3.20	40	128
9	**Total**			**590**	**805**

3.6 ALLOCATION TO COST COMPONENTS

PRELIMINARY COST-OF-SERVICE ALLOCATION AND GENERAL REALLOCATION

Table 3-9 shows the preliminary cost-of-service allocation prior to any adjustments and the adjusted cost-of-service allocations after the General cost reallocation. The Operating costs (Line 1) are equal to the total Operating revenue requirements (**Table 3-1**, Line 16) allocated to each cost component based on the Operating allocation (**Table 3-6**, Line 11). The Capital costs (Line 2) are equal to the total Capital revenue requirements (**Table 3-1**, Line 16) allocated to each cost component based on the Capital allocation (**Table 3-7**, Line 11). Note that the total cost-of-service (Line 3) is equal to the total rate revenue requirement for CY 2024 (**Table 3-1**, Line 16).

The next step is to reallocate General costs (Line 4) based on the proportion of costs in each cost component (except General) in the preliminary allocation. The total revenue requirement (Line 5) stays the same after the General cost reallocation.

Table 3-9: Cost-of-Service Allocation by Cost Component (Preliminary, General)

Line	Revenue Requirement	Meter	Customer	Fire	Base	Max Day	Max Hour	Supply	General	Total
1	Operating Costs	$20,164	$34,279	$0	$295,707	$295,707	$250,783	$60,480	$844,673	$1,801,794
2	Capital Costs	$1,550	$0	$9,012	$92,932	$92,932	$84,868	$39,540	$4,368	$325,202
3	**Total - Revenue Requirement**	**$21,714**	**$34,279**	**$9,012**	**$388,639**	**$388,639**	**$335,651**	**$100,020**	**$849,041**	**$2,126,996**
4	General Cost Allocation	$14,426	$22,774	$5,987	$258,202	$258,202	$222,998	$66,451	($849,041)	$0
5	**Total - Requirement after General Allocation**	**$36,140**	**$57,053**	**$14,999**	**$646,841**	**$646,841**	**$558,650**	**$166,472**	**$0**	**$2,126,996**

FIRE PROTECTION AND MAXIMUM CAPACITY REALLOCATION

Table 3-10 shows the cost-of-service in each cost component after reallocating fire protection and maximum capacity-related costs. The cost-of-service after General cost reallocation (Line 1) is from **Table 3-9**. Public Fire costs (Line 2) are reallocated to the Meter component, since public fire protection is a safety benefit shared by all District customers. Finally, the maximum capacity reallocation (Line 4) adjusts the costs in Max Hour to recover maximum capacity costs in the Meter cost component. This allocation is to increase the percentage of fixed revenue recovery, which will provide a higher level of financial and rate stability for the District. Currently, the District recovers approximately 25% of its total rate revenue from fixed charges. However, based on an analysis of the District's O&M expenses, over 95% of the District's costs are fixed. Thus, WRE recommends that the District gradually increases its fixed costs recovery to a maximum of 40% to be more in line with its cost structure. To minimize rate shock to the District's customers, the proposed plan is set to collect 30% of the total

rate revenue from fixed charges. To achieve this objective, WRE reallocated 95% of Max Hour costs to the Meter component to achieve a higher percentage of fixed revenues.

Table 3-10: Cost-of-Service Allocation by Cost Component (Fire Protection, Maximum Capacity)

Line	Revenue Requirement	Meter	Customer	Fire	Base	Max Day	Max Hour	Supply	Total
1	**Adjusted for General**	**$36,140**	**$57,053**	**$14,999**	**$646,841**	**$646,841**	**$558,650**	**$166,472**	**$2,126,996**
2	Public Fire Allocation	$14,999		($14,999)					$0
3	**Adjusted for Fire**	**$51,139**	**$57,053**	**$0**	**$646,841**	**$646,841**	**$558,650**	**$166,472**	**$2,126,996**
4	Maximum Capacity Reallocation	$530,717					($530,717)		
5	**Adjusted for Max. Capacity**	**$581,857**	**$57,053**	**$0**	**$646,841**	**$646,841**	**$27,932**	**$166,472**	**$2,126,996**

FINAL COST-OF-SERVICE ALLOCATION

Table 3-11 shows the final cost-of-service allocation based on the adjustments for General, Fire, and Maximum Capacity from the prior report tables. The Meter and Customer components add up to approximately 30% of the total costs.

Table 3-11: Cost-of-Service Allocation by Cost Component (Final)

Line	Cost Components	Final Cost Allocation
1	Meter	$581,857
2	Customer	$57,053
3	Base	$646,841
4	Max Day	$646,841
5	Max Hour	$27,932
6	Supply	$166,472
11	**Total**	**$2,126,996**

3.7 UNIT COST CALCULATION

UNITS OF SERVICE DEFINITIONS

The appropriate units of service are then established for each cost component based on cost causation, which is shown in **Table 3-12**. Cost components to be recovered by the fixed charges are assigned units of service based on the number of equivalent meters and meter counts (**Table 3-8**). Cost components to be recovered by the quantity charges are assigned units based on annual usage in ccf (**Table 2-4**).

Table 3-12: Units of Service Definitions

Line	Cost Components	Units of Service Definition	Units of Service	Units
1	Meter	*Equivalent meters x 365 days*	293,825	equiv. meters/year
2	Customer	*Meter counts x 12 months*	7,080	bills/year
3	Base	*Annual usage in ccf*	257,362	ccf/year
4	Max Day	*Annual usage in ccf*	257,362	ccf/year
5	Max Hour	*Annual usage in ccf*	257,362	ccf/year
6	Supply	*Annual usage in ccf*	257,362	ccf/year

UNIT COST BY COST COMPONENT

Table 3-13 shows the calculation of unit costs by each cost component. The final cost-of-service allocation (**Table 3-11**) is divided by the units of service (**Table 3-12**) for each cost component to derive the unit cost. These unit costs will determine the rates in Section 4.

Table 3-13: Unit Cost by Cost Component

Line	Cost Components	Final Cost Allocation	Units of Service	Unit Cost	Units
1	Meter	$581,857	293,825	$1.98	per equiv. meter per day
2	Customer	$57,053	7,080	$8.06	per bill per month
3	Base	$646,841	257,362	$2.51	per ccf
4	Max Day	$646,841	257,362	$2.51	per ccf
5	Max Hour	$27,932	257,362	$0.11	per ccf
6	Supply	$166,472	257,362	$0.65	per ccf

4. WATER RATES

4.1 RATE DESIGN METHODOLOGY

A five-year proposed water rate schedule was developed based on the results of the proposed financial plan and cost-of-service analysis. The key steps in developing the proposed rate schedule are outlined below:

- **Rate structure evaluation**: The existing rate structure is evaluated, and any proposed changes are identified. Proposed rate structure changes are typically intended to address specific policy objectives or to allocate costs based on the cost-of-service analysis.
- **Test year rate development**: Rates are calculated for the proposed rate structure for the cost-of-service test year (CY 2024). Rate calculations directly incorporate the unit costs developed in the cost-of-service analysis. The test year rates are revenue neutral, then are increased based on the proposed financial plan revenue adjustments. Although total rate revenues in the first year of adjustments (CY 2025) are designed to increase by the proposed revenue adjustment percentage (19% in CY 2025), the proposed percentage increase to each rate/charge varies due to the updated cost-of-service allocations.
- **Five-year rate schedule development**: Proposed rates for the five-year period are calculated by increasing the cost-of-service rates by the proposed annual revenue adjustment percentages from the proposed financial plan.

4.2 PROPOSED CHANGES TO RATE STRUCTURE

The main objective of the rate study was to conduct a comprehensive cost-of-service analysis while maintaining as much of the current water rate structure as possible to minimize customer impacts. The District's current rate structure includes a daily service charge and a uniform water usage charge for all customers.

After examining the existing rate methodology, WRE recommends a change to the daily service charge to be based on meter size to reflect the different capacity of each meter size. This rate structure is also consistent with industry standards and Proposition 218's proportionality requirement. Given the District's water supply and customer profile, WRE recommends the District retains the current uniform monthly water usage charge structure.

4.3 PROPOSED DAILY SERVICE CHARGE

REVENUE NEUTRAL RATES

The revenue neutral rate represents the cost-of-service analysis for CY 2024 but does not include the proposed revenue adjustments for the first year of rates in CY 2025. **Table 4-1** shows the revenue neutral daily service charge calculations. The Meter and Customer unit costs are from **Table 3-13** (Lines 1-2). Meter unit cost is multiplied by the meter capacity ratio; Customer unit cost does not vary

based on meter size and thus is the same for all meter sizes. The monthly Customer unit cost is converted to daily cost to be consistent with the Meter unit cost[7].

Table 4-1: Revenue Neutral Daily Service Charge

Line	Meter Size	Meter Ratio	Number of Accounts	Meter Cost	Customer Cost	Revenue Neutral Rate
1	3/4 inch	1.00	145	$1.98	$0.26	$2.25
2	1 inch	1.00	278	$1.98	$0.26	$2.25
3	1.5 inch	2.00	127	$3.96	$0.26	$4.23
4	2 inch	3.20	40	$6.34	$0.26	$6.60

PROPOSED RATES WITH ADJUSTMENT

Table 4-2 shows the proposed daily service charge for CY 2025 based on the revenue neutral rate (**Table 4-1**) adjusted by the proposed revenue adjustment of 19% in the first year (**Table 2-15**) and rounded up to the nearest cent.

Table 4-2: Proposed Daily Service Charge after Adjustment

Line	Meter Size	Revenue Neutral Rate	Proposed Rate (w/ 19% Adj.)	Current Rate	Difference ($)	Difference (%)
1	3/4 inch	$2.25	$2.68	$2.48	$0.20	8.1%
2	1 inch	$2.25	$2.68	$2.48	$0.20	8.1%
3	1.5 inch	$4.23	$5.04	$2.48	$2.56	103.2%
4	2 inch	$6.60	$7.87	$2.48	$5.39	217.3%

4.4 PROPOSED USAGE CHARGE

REVENUE NEUTRAL RATES

The revenue neutral rate represents the cost-of-service analysis for CY 2024 but does not include the proposed revenue adjustments for the first year of rates in CY 2025. **Table 4-3** shows the revenue neutral water usage charge for all customers, based on the Supply, Base, Max Day, and Max Hour unit costs from **Table 3-13**.

Table 4-3: Revenue Neutral Usage Charge

Line	Customer Class	Annual Usage (ccf)	Supply Cost	Base Cost	Max Day Cost	Max Hour Cost	Revenue Neutral Rate
1	All Customers	257,362	$0.65	$2.51	$2.51	$0.11	$5.78

[7] $8.06 per month per bill x 12 months / 365 days = $0.26/day

PROPOSED RATES WITH ADJUSTMENT

Table 4-4 shows the proposed water usage charge for CY 2025 based on the revenue neutral rate (**Table 4-3**) adjusted by the proposed revenue adjustment of 19% in the first year (**Table 2-15**) and rounded up to the nearest cent.

Table 4-4: Proposed Usage Charge after Adjustment

Line	Customer Class	Revenue Neutral Rate	Proposed Rate (w/ 19% Adj.)	Current Rate	Difference ($)	Difference (%)
1	All Customers	$5.78	$6.90	$6.20	$0.70	11.3%

4.5 PROPOSED WATER RATE SCHEDULE

PROPOSED FIVE-YEAR REVENUE ADJUSTMENTS

Table 4-5 shows the revenue adjustments for the five-year period and their effective date based on the proposed financial plan (**Table 2-15**).

Table 4-5: Proposed Revenue Adjustments

Line	Fiscal Year	Revenue Adjustments	Effective Date
1	CY 2025	19.0%	1/1/2025
2	CY 2026	19.0%	1/1/2026
3	CY 2027	9.0%	1/1/2027
4	CY 2028	9.0%	1/1/2028
5	CY 2029	9.0%	1/1/2029

PROPOSED FIVE-YEAR WATER RATE SCHEDULE

The proposed five-year water rate schedules are based on the proposed rate structure changes, the cost-of-service analysis, and the proposed revenue adjustments (**Table 4-5**) in the five-year period. The proposed rates for CY 2026 through CY 2029 were calculated by increasing the CY 2025 rates by the revenue adjustments, rounded up to the nearest cent. **Table 4-6** and **Table 4-7** show the current and proposed daily service charge and water usage charge, respectively.

Table 4-6: Proposed Daily Service Charge

Line	Meter Size	As of 1/1/24	Effective 1/1/25	Effective 1/1/26	Effective 1/1/27	Effective 1/1/28	Effective 1/1/29
1	3/4 inch	$2.48	$2.68	$3.19	$3.48	$3.80	$4.15
2	1 inch	$2.48	$2.68	$3.19	$3.48	$3.80	$4.15
3	1.5 inch	$2.48	$5.04	$6.00	$6.54	$7.13	$7.78
4	2 inch	$2.48	$7.87	$9.37	$10.22	$11.14	$12.15

Table 4-7: Proposed Water Usage Charge

Line	Usage Charge ($/ccf)	As of 1/1/24	Effective 1/1/25	Effective 1/1/26	Effective 1/1/27	Effective 1/1/28	Effective 1/1/29
1	All customers	$6.20	$6.90	$8.22	$8.96	$9.77	$10.65

4.6 CUSTOMER IMPACTS

WRE evaluated the impacts to each meter size based on the proposed water rates for CY 2025 at various levels of usage. The tables also include the number of bills at each level of usage. Please note that the number of bills does not represent the number of customers as each customer can have 12 different bills within a year.

Table 4-8 shows the proposed impacts for a customer with a 3/4" meter at various levels of monthly usage. For the average customer with this meter size that uses 11 ccf of water a month, the monthly impact will be $13.78 or 9.6%, which is significantly lower than the 19% revenue adjustment applied to CY 2025.

Table 4-8: Proposed Customer Impacts (3/4 inch meters)

Line	Monthly Customer Bill Impacts	Monthly Usage (ccf)	No. of Bills	Current Bill	Proposed Bill	Difference ($)	Difference (%)
1	Very Low Use (10th percentile)	2	101	$87.83	$95.32	$7.48	8.5%
2	Low Use (25th percentile)	5	96	$106.43	$116.02	$9.58	9.0%
3	Median Use	10	56	$137.43	$150.52	$13.08	9.5%
4	Average Use	11	64	$143.63	$157.42	$13.78	9.6%
5	High Use (75th percentile)	22	23	$211.83	$233.32	$21.48	10.1%
6	Very High Use (90th percentile)	39	13	$317.23	$350.62	$33.38	10.5%

Table 4-9 shows the proposed impacts for a customer with a 1" meter (the most common meter size, representing approximately 47% of customer accounts). For the average customer with this meter size that uses 11 ccf of water a month, the monthly impact will be $13.78 or 9.6%, which is significantly lower than the 19% revenue adjustment applied to CY 2025.

Table 4-9: Proposed Customer Impacts (1 inch meters)

Line	Monthly Customer Bill Impacts	Monthly Usage (ccf)	No. of Bills	Current Bill	Proposed Bill	Difference ($)	Difference (%)
1	Very Low Use (10th percentile)	3	142	$94.03	$102.22	$8.18	8.7%
2	Low Use (25th percentile)	6	126	$112.63	$122.92	$10.28	9.1%
3	Median Use	15	65	$168.43	$185.02	$16.58	9.8%
4	Average Use	11	107	$143.63	$157.42	$13.78	9.6%
5	High Use (75th percentile)	34	23	$286.23	$316.12	$29.88	10.4%
6	Very High Use (90th percentile)	57	17	$428.83	$474.82	$45.98	10.7%

Table 4-10 shows the proposed impacts for a customer with a 1.5" meter at various levels of monthly usage. For the average customer with this meter size that uses 13 ccf of water a month, the monthly impact will be $86.97 or 56%, which is higher than the 19% revenue adjustment applied to CY 2025.

Table 4-10: Proposed Customer Impacts (1.5 inch meters)

Line	Monthly Customer Bill Impacts	Monthly Usage (ccf)	No. of Bills	Current Bill	Proposed Bill	Difference ($)	Difference (%)
1	Very Low Use (10th percentile)	3	27	$94.03	$174.00	$79.97	85.0%
2	Low Use (25th percentile)	10	32	$137.43	$222.30	$84.87	61.8%
3	Median Use	25	21	$230.43	$325.80	$95.37	41.4%
4	Average Use	13	27	$156.03	$243.00	$86.97	55.7%
5	High Use (75th percentile)	47	15	$366.83	$477.60	$110.77	30.2%
6	Very High Use (90th percentile)	74	5	$534.23	$663.90	$129.67	24.3%

Table 4-11 shows the proposed impacts for a customer with a 2" meter at various levels of monthly usage. For the average customer with this meter size that uses 26 ccf of water a month, the monthly impact will be $182.15 or 77%, which is higher than the 19% revenue adjustment applied to CY 2025.

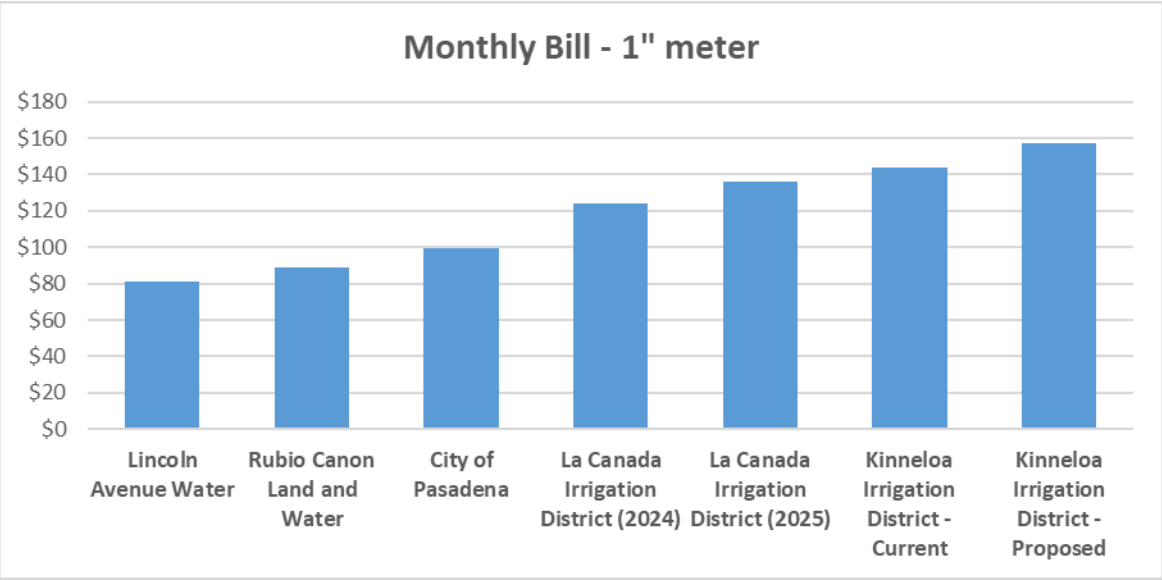
Table 4-11: Proposed Customer Impacts (2 inch meters)

Line	Monthly Customer Bill Impacts	Monthly Usage (ccf)	No. of Bills	Current Bill	Proposed Bill	Difference ($)	Difference (%)
1	Very Low Use (10th percentile)	3	7	$94.03	$260.08	$166.05	176.6%
2	Low Use (25th percentile)	12	7	$149.83	$322.18	$172.35	115.0%
3	Median Use	35	5	$292.43	$480.88	$188.45	64.4%
4	Average Use	26	6	$236.63	$418.78	$182.15	77.0%
5	High Use (75th percentile)	93	2	$652.03	$881.08	$229.05	35.1%
6	Very High Use (90th percentile)	186	1	$1,229.25	$1,523.47	$294.22	23.9%

4.7 MONTHLY WATER BILL COMPARISON

WRE conducted a comparison of the District's current and proposed CY 2025 monthly bills for an average customer with four neighboring agencies, as shown in **Figure 4-1**. All monthly bills are based on a 1" meter and assume a 11 ccf in monthly water use.

Figure 4-1: Monthly Bill Comparison – 1" Meter



5. APPENDICES

5.1 FINANCIAL PLAN APPENDICES

Table 5-1: Capital Projects (Detail)

Line	Capital Projects (Inflated)	Project Number	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
1	**General Projects**		**$0**	**$195,676**	**$221,728**	**$184,703**	**$40,945**	**$355,681**
2	Main Office Solar and Battery Storage Project including New Roof	G-1	$0	$86,476	$0	$0	$0	$0
3	Remodel Main Office	G-2	$0	$0	$0	$0	$0	$112,351
4	Physical Site Security Improvements	G-3	$0	$26,000	$48,672	$60,968	$0	$0
5	Fire and Water Wise Landscape Improvements (Office, Eucalyptus, Brown Well, Sage/Wilcox Reservoir)	G-4	$0	$0	$0	$0	$0	$0
6	Roofing on Booster Stations and CL2 Rooms	G-5	$0	$15,600	$16,224	$16,873	$17,548	$0
7	SCADA Antenna Network Upgrade - Wilcox Well Repeater w/ NYD Project?	G-6	$0	$0	$0	$0	$0	$60,833
8	SCADA RTU Upgrades (current RTU's no longer supported after 2027)	G-7	$0	$0	$64,896	$67,492	$0	$0
9	Solar Panels/Batteries for Comms at all Generator Powered Sites (Glen in ST-2)	G-8	$0	$52,000	$54,080	$0	$0	$0
10	SCADA Radio Upgrades (current Radios still manufactured but likely required during years 5-10)	G-9	$0	$0	$0	$0	$0	$0
11	Fleet Replacement - Booster Backup Generators (Eucalyptus, Wilcox Resv, Vosburg/Sage, Glen,)	G-10	$0	$0	$0	$0	$0	$182,498
12	District Storage Facilities at Sage Site, Eucalyptus Site and Vosburg Site	G-11	$0	$15,600	$16,224	$16,873	$0	$0
13	Driveway Paving/Improvements at Wilcox Well/Wilcox Reservoir/Holly (3 locations, see ST-2 for Glen)	G-12	$0	$0	$21,632	$22,497	$23,397	$0
14	Clean Energy Program per SB 1020 (100% renewable and zero-carbon sources by 2035) - Undefined/Excluded	G-13	$0	$0	$0	$0	$0	$0
17	**Water Storage Projects**		**$0**	**$323,736**	**$81,120**	**$0**	**$0**	**$121,665**
18	Vosburg Reservoir - Replace all Exterior Cladding/Screens and Recoat/Patch Roof	ST-1	$0	$0	$0	$0	$0	$121,665
19	Glen Reservoir - New Roofing System, Solar, Liner, Sitework	ST-2	$0	$317,496	$0	$0	$0	$0
20	Brown Reservoir -New Roof Framing System + Interior Rehab/Liner	ST-3	$0	$0	$0	$0	$0	$0
21	Eucalyptus Reservoir - Roof/Paint/General Rehab pending recommendations following 2025 inspection	ST-4	$0	$0	$27,040	$0	$0	$0
22	Wilcox Reservoir - Roof/Paint/General Rehab pending recommendations following 2025 inspection	ST-5	$0	$0	$54,080	$0	$0	$0

Line	Capital Projects (Inflated)	Project Number	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
23	East Tank - Gabion Baskets and Labor to built retaining wall around tank (60 lf)	ST-6	$0	$6,240	$0	$0	$0	$0
24	Steel Tanks (assume all needs are covered in USG Asset Management Program, included in OpEx)	ST-7	$0	$0	$0	$0	$0	$0
25	**Pumping Projects**		**$0**	**$326,040**	**$659,776**	**$598,990**	**$0**	**$0**
26	K3 Well Pump Rehab/Upgrade to Water Lubricated, cleanup Electrical System, prep for Generator	P-1	$0	$208,000	$0	$0	$0	$0
27	Eucalyptus Booster Pump/Motor R&R (Pump 1)	P-2	$0	$0	$389,376	$0	$0	$0
28	Wilcox Booster: Pump Stand, new Booster, Electrical Upgrade and Pumping Line	P-3	$0	$78,000	$0	$0	$0	$0
29	Wilcox Well Rehab - Line Well/New Pump&Motor/Electrical/Generator and Disinfection Plant	P-4	$0	$0	$270,400	$506,189	$0	$0
30	Glen Reservoir Booster Pump/Motor R&R #1, new #2, related work and Electrical System Upgrade	P-5	$0	$40,040	$0	$92,801	$0	$0
31	Treatment Projects		$0	$137,540	$91,936	$84,365	$0	$0
32	Fluoride Blending Treatment for Delores Tunnel and Far Mesa Tunnel	T-1	$0	$137,540	$0	$0	$0	$0
33	K3 Chlorination System and Controls Upgrade (new Generator system and Controls)	T-2	$0	$0	$0	$84,365	$0	$0
34	Fluoride Blending Treatment for Hi-Low Tunnel to West Tank	T-3	$0	$0	$91,936	$0	$0	$0
35	**Spreading Projects**		**$0**	**$41,600**	**$81,120**	**$0**	**$0**	**$0**
36	Delores Tunnel - Pipeline Repair and Protection in Canyon, Tree Removals, Hazard Mitigation	SP-1	$0	$26,000	$0	$0	$0	$0
37	Far Mesa Tunnel: Access Structure on Rittenhouse Property with Pipe Shield	SP-2	$0	$0	$54,080	$0	$0	$0
38	Hi-Lo Tunnel - replace canyon piping with HDPE where potential for damage	SP-3	$0	$0	$27,040	$0	$0	$0
39	Eucalyptus Tunnel - Camera Inspection/Assessment Report	SP-4	$0	$15,600	$0	$0	$0	$0
40	**Distribution System Projects - Valves/Hydrants**		**$0**	**$46,800**	**$27,040**	**$28,122**	**$29,246**	**$85,166**
41	Control Valve Retrofit at Sage Booster Bypass to drop West Tank Water into Sage/Holly	D-1	$0	$10,400	$0	$0	$0	$0
42	Control Valve Retrofit at Eucalyptus Bypass to Drop Holly/Sage Water into Eucalyptus Reservoir	D-2	$0	$10,400	$0	$0	$0	$0
43	Earthquake Valve Actuators at Storage Tanks (10 valves, 2 EQ sensors)	D-3	$0	$0	$0	$0	$0	$0
44	Holly Booster Pump Removal/Install Transfer Valve for East Tank to Holly Tanks w/ new SCADA	D-4	$0	$0	$0	$0	$0	$54,749
45	Gate Valve Replacement Program (unrelated to pipeline projects)	D-5	$0	$26,000	$27,040	$28,122	$29,246	$30,416
46	**Distribution System Projects - Mainline**		**$125,000**	**$0**	**$2,238,912**	**$623,246**	**$688,754**	**$979,406**

Line	Capital Projects (Inflated)	Project Number	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
47	Brown-Glen to Villa Knolls/Edgecliff Project (per Civiltec design 2023)	D-6	$0	$0	$2,238,912	$0	$0	$0
48	Villa Mesa/Villa Rica: Upgrade 4"/2.5" STL to 8"/6" DIP, 13 services and 1 hydrant (FF<350gpm)	D-7	$0	$0	$0	$623,246	$0	$0
49	Lower Pasadena Glen Road: Replace 780' of 3" STL to 8" DIP (14 services, 2 new hydrants on V pressure, abandon GV-1&2)	D-8	$0	$0	$0	$0	$688,754	$0
50	East Mesaloa - 480' of 4" STL to 8" DIP, 7 services, 1 hydrant (H-03 no FF on file)	D-9	$0	$0	$0	$0	$0	$346,746
51	East Meyerloa: Replace 560' of 4" STL w/ 6"DIP, no (e) FH, add 1 (n) FH, 6 services	D-10	$0	$0	$0	$0	$0	$381,725
52	East Clarmeya - 300' of 4" STL with DIP, R&R 1 hydrant, 5 services; abandon 460' of 4" STL under homes between Clarmeya and Doyne	D-11	$0	$0	$0	$0	$0	$250,935
53	Eucalyptus-Holly Loop Phase 1: Eucalyptus Reservoir to 1850 Kinneloa Canyon Road; FF improvement on KCRd.	D-12	$0	$0	$0	$0	$0	$0
54	Eucalyptus-Holly Loop Phase 2: 1850 KCynRd to corner of Kinneloa Mesa Road, add 1 new hydrant, ~600ft	D-13	$0	$0	$0	$0	$0	$0
55	Glen Pumping/Drain Line: Cut in New Sump for Inlet/Drain, New Pumping Line to Intersection, New Drain to Wash	D-14	$0	$0	$0	$0	$0	$0
56	Brown Pumping Line, replace 6" steel from Reservoir to Barhite Street (1,200 lf)	D-15	$0	$0	$0	$0	$0	$0
57	East Fairpoint Street - Abandon 900 lf 4" STL, connect (6) Services to (e) 8" DIP and upgrade FPIC to 4"	D-16	$0	$0	$0	$0	$0	$0
58	West Windover: Replace 280' of 4" STL to 4" DIP, reconnect 6 services, no hydrants	D-17	$0	$0	$0	$0	$0	$0
59	Vosburg west of SMV: Replace 400' of 1.5" STL, abandon 1200' and reconnect 16 services to new service line or (e) AC	D-18	$0	$0	$0	$0	$0	$0
60	North Villa Heights Road: Abandon 240' of 4" AC and 210' of 2" STL, reconnect 7 services to (e) 12" DIP	D-19	$0	$0	$0	$0	$0	$0
61	1770-1790 Sierra Madre Villa: Replace 300' of 3" STL in private driveway with 4" DIP, reconnect 5 services	D-20	$0	$0	$0	$0	$0	$0
62	**Total - Capital Projects**		**$125,000**	**$1,071,392**	**$3,401,632**	**$1,519,425**	**$758,946**	**$1,541,918**

5.2 COST-OF-SERVICE ANALYSIS APPENDICES

Table 5-2: Operating Expenses by System Functions (Detail)

Line	Operating Expenses	CY 2024 Budget	Cost Function	Notes
1	Leased Water Rights	$0	Supply	
2	Electricity	$190,859	Pumping	
3	Maintenance Supplies	$25,000	Distribution	
4	Material and Labor for Install	$0	Distribution	
5	Safety Equipment	$2,000	General	
6	Operations & Maintenance Labor	$275,000		75% to Distribution 25 % to Treatment
7	Operations & Maintenance OT Non-Emergency	$21,000		75% to Distribution 25 % to Treatment
8	Stand-by Compensation	$10,980		75% to Distribution 25 % to Treatment
9	Training/Certification	$1,600	General	
10	Water Treatment/Analysis	$12,000	Treatment	
11	Water Treatment/Materials	$10,000	Treatment	
12	Maintenance Contractors	$128,000		2/3 to Storage, 1/3 to Distribution
13	SCADA System O&M	$15,000	General	
14	Repair Contractors - Emergency	$0	Distribution	
15	Equipment Maintenance	$7,500	Pumping	
16	Vehicle Maintenance	$12,500	General	
17	Fuel - All Equipment	$20,000	Distribution	
18	Equipment Rental	$500	General	
19	Insurance-Workers Comp.	$16,000	General	
20	Insurance-Liability	$32,065	General	
21	Insurance-Property	$4,746	General	
22	Insurance-Medical	$75,000	General	
23	Engineering Services	$115,000		1/3 Treatment, 2/3 distribution
24	Watermaster Services (Raymond Basin)	$46,795	Supply	
25	Executive Officer Salary	$179,220	General	
26	Administrative Travel	$1,800	General	
27	BofD Compensation	$9,000	General	
28	Administrative & Board Exp.	$2,000	General	
29	B of D Election	$0	General	
30	Customer/Public Information	$17,000	Customer	
31	PERS - KID	$47,000	General	
32	Social Security - KID	$39,000	General	
33	Medicare - KID	$9,500	General	
34	Office/Computer Supplies	$7,000	General	
35	Postage/Delivery	$5,000	Customer	
36	Professional Dues	$19,910	General	

Line	Operating Expenses	CY 2024 Budget	Cost Function	Notes
37	Legal	$6,000	General	
38	Telephone	$4,000	General	
39	Mobile Communications	$2,000	General	
40	Pagers	$500	General	
41	Internet Service	$1,500	General	
42	Computer/Software Maintenance	$13,994	General	
43	Office Equipment Maintenance	$2,500	General	
44	Accounting Services	$7,700	General	
45	Office & Accounting Labor	$172,500	General	
46	Professional Services	$65,000	General	
47	Contract Services	$22,260	General	
48	Administrative Fee (FMWD)	$13,193	Supply	
49	Permits/Fees	$15,000	General	
50	Taxes - Use	$500	General	
51	Customer Project Expenses	$0	General	
52	Bank Service Charges	$12,000	Customer	
53	Water Mains	$0	Distribution	
54	Water Tunnels	$10,000	Distribution	
55	Water Treatment Plant	$0	Treatment	
56	Water Meters	$20,000	Meter	
57	Electrical/Electronic Equipment	$25,000	General	
58	Computer/Office Equipment	$2,500	General	
59	Vehicles	$0	General	
60	Water Company Facilities	$20,000	General	
61	KID Office	$0	General	
62	Booster Pump Replacement	$0	Pumping	
63	SCADA System O&M	$10,000	Distribution	
64	Tools	$3,000	General	
65	**Total - Expenses**	**$1,787,122**		

Table 5-3: Capital Assets by System Functions (Detail)[8]

Line	Asset Description	Category	Year Built	Useful Life	Replacement Cost	Cost Function
1	West Tank	Storage		100	$2,500,000	Storage
2	Sage Tank	Storage	2002	100	$1,125,000	Storage
3	Holly Tank 1	Storage	1957	100	$750,000	Storage
4	Holly Tank 2	Storage	1959	100	$750,000	Storage
5	East Tank	Storage	1958	100	$750,000	Storage
6	Wilcox Reservoir	Storage	1930	100	$11,250,000	Storage
7	Brown Reservoir	Storage	1924	100	$1,250,000	Storage
8	Glen Reservoir	Storage	1924	100	$1,250,000	Storage
9	Vosburg Reservoir	Storage	1958	100	$12,500,000	Storage
10	Eucalyptus Reservoir	Storage	1989	100	$1,850,000	Storage
11	K-3 Well	Wells/Pumps	1965	100	$3,000,000	Supply
12	K-3 Well Pump	Wells/Pumps	2005	20	$250,000	Pumping
13	Wilcox Well	Wells/Pumps	1924	100	$3,000,000	Supply
14	Wilcox Well Pump	Wells/Pumps	2000	20	$250,000	Pumping
15	Eucalyptus Booster Pumps	Wells/Pumps	2015	15	$225,000	Pumping
16	Sage Booster Pumps	Wells/Pumps	2009	15	$150,000	Pumping
17	Wilcox Booster Pumps	Wells/Pumps	1997	15	$150,000	Pumping
18	Glen Reservoir Pump	Wells/Pumps	2019	15	$75,000	Pumping
19	Vosburg Booster Pumps	Wells/Pumps	2005	15	$225,000	Pumping
20	Eucalyptus Booster Station	Buildings	1989	50	$240,000	Pumping
21	Sage Booster Station	Buildings	2002	50	$240,000	Pumping
22	Vosburg Booster Station	Buildings	2005	50	$240,000	Pumping
23	K3 Chlorination Room	Buildings	1965	50	$40,000	Treatment
24	District Office	Buildings	1965	50	$375,000	General
25	Mainline	Pipeline System		65	$36,000,000	Distribution
26	Service Line	Pipeline System		65	$2,990,000	Distribution
27	Meters	Pipeline System		15	$239,200	Meter
28	Meter AMI Hardware	Pipeline System			$238,000	Meter
29	Valves - Mainline	Pipeline System		65	$3,480,000	Distribution

[8] The assets list represents a rough order of magnitude replacement cost estimate provided by District management based on the best available data

Line	Asset Description	Category	Year Built	Useful Life	Replacement Cost	Cost Function
30	Valves - Hydrant	Pipeline System		65	$1,665,000	Fire
31	Hydrants	Pipeline System		65	$1,110,000	Fire
32	Cla-Val	Pipeline System		25	$315,000	Distribution
33	Seismic Actuator Valves	Pipeline System		20	$450,000	Distribution
34	Office/Hidden Valley	Land			$750,000	General
35	Vosburg Reservoir	Land			$1,000,000	Storage
36	Eucalyptus Reservoir	Land			$10,000	Storage
37	Glen Reservoir Site	Land			$250,000	Storage
38	Brown Reservoir Site	Land			$100,000	Storage
39	Holly Tanks Site	Land			$100,000	Storage
40	East Tank Site	Land			$0	Storage
41	RBMB Pumping Rights	Water Rights			$5,099,294	Supply
42	Tunnels/Diversions	Water Rights			$1,076,023	Supply
43	SCADA System	Other		10	$320,000	Distribution
44	Cl2 Generators	Other		20	$500,000	Treatment
45	Cl2 Tanks and Pumps	Other		10	$60,000	Treatment
46	Cl2 Analyzers	Other		25	$120,000	Treatment
47	Fluoride Analyzers	Other		25	$60,000	Treatment
48	Electrical MCC/ATS	Other		50	$1,400,000	Pumping
49	Trucks	Other		10	$220,000	General
50	Diesel BackUP Generators	Other		20	$150,000	Pumping
51	TOTAL ASSETS				**$100,137,517**	

General Manager's Report
for the Board of Directors Meeting on September 24, 2024

I. Customer Account Information

A. Customer Accounts – as of 8/21/24

Active accounts: 590

Delinquent accounts receiving late charges: 6

Accounts shut off for non-payment: 0

Month	Current	30 days	60 days	90 days or greater	Total
August 2023	$28,384.80	$2,329.14	$79.36	$0.00	$30,793.30
September 2023	$22,157.30	$1,983.49	$78.91	$0.00	$30,793.30
October 2023	$26,703.85	$1,809.97	$116.35	$0.00	$28,630.17
November 2023	$45,028.39	$2,257.29	$0.00	$0.00	$47,285.68
December 2023	$65,327.32	$6,644.08	$1,313.97	$0.00	$73,285.37
January 2024	$36,204.89	$3,221.13	$120.34	$0.00	$39,546.36
February 2024	$21,168.33	$1,151.22	$0.00	$0.00	$22,319.55
March 2024	$13,703.26	$2,993.69	$0.00	$0.00	$16,696.95
April 2024	$31,375.55	$745.26	$0.00	$0.00	$32,120.81
May 2024	$91,305.12	$7,901.75	$0.00	$0.00	$99,206.87
June 2024	$120,310.41	$4,981.13	$0.00	$0.00	$125,291.54
July 2024	$57,369.14	$7,861.86	$0.00	$0.00	$65,231.00
August 2024	$157,630.15	$15,761.16	$4,420.82	$3.57	$177,815.70

II. Customer Care Report

Customer Leaks	System Leaks	Water Waste	Water Quality	Customer Service*	Comments
12	0	0	0	9	Curb Stop and Meter Leak at 2069 and 2075 Villa Heights Road

* Customer service includes requests for water shutoff to facilitate customer plumbing repairs, inquiries about water bills, requests for leak checks and general questions.

III. General Manager's Projects and Activities

A. Meetings/Outreach/Key Contacts

1. PWAG Quarterly Meeting 8/28/24
2. PWP Chief Asst. GM Meeting on 8/30/24
3. ACWA-JPIA Indoor Heat Illness webinar on 9/3/24
4. Finance Committee Meeting on 9/5/24
5. FMWD Manager Meeting 9/11/24
6. LACoFD Fire Prevention Site Visit to Villa Rica/Villa Mesa on 9/12/24
7. Rate Study Inputs Review Meetings
8. RBMB Strategic Planning Meeting 9/16/24

B. Grant Funding Opportunities

1. **Cal OEL State and Local Cybersecurity Grant Program (SLCGP) – proposals due 9/27/24. Up to $250k per agency. Finalizing proposal submittal.**
2. **Bureau of Reclamation WaterSMART –Water and Energy Efficiency Grants Round 2 – applications due 11/14/24; up to $100k matching**
3. **Bureau of Reclamation WaterSMART – Small-Scale Water Efficiency Projects Grants for Fiscal Year 2025 – applications due 1/14/2025; up to $100k matching**
4. Hazard Mitigation Grants: KID staff are monitoring EPA BRIC (Building Resilient Infrastructure and Communities) grant opportunities to apply once the PWAG Multi-Agency Hazard Mitigation Plan is complete and approved. **Meeting on 7/2/24 with consultant and PWAG agencies re: next steps.**
5. FEMA Grants: FEMA and CalOES have approved KID grants requests for East Tank Earthwork Removal in association with DR-4699 CA "California Severe Winter Storms" disaster. **Pending reimbursement from CalOES**

C. Office Staff Updates

1. **Prepared Q3 Tier 2 notice re: Fluoride MCL at Delores Tunnel Source (latest sample at 1.7 mg/L, RAA at 2.05 mg/L) pending DDW staff review.**
2. **All required documents submitted to CalOES for reimbursement of East Tank Earthwork removal project costs.**

D. System Project Updates

1. **Hired new field operator trainee, Jeff P. with start date of 9/8/24.**
2. **K3 Well Vault Excessive Heat requiring unplanned well shutoff**
3. **Continuing with meter maintenance and LSLI via GIS**
4. **Hi-Lo Tunnel Water diverted from Kinneloa Mesa Spreading on 8/15/24 to allow for Kinneloa Mesa paving repair project, project complete, diverted back to Holly Site on 9/8/24**

E. Regulatory Compliance and Reporting

1. SAFER Dashboard update complete, KID is now "Potentially At-Risk" instead of previous classification of "At-Risk"
2. CLEAN FLEETS REPORT DUE APRIL 1, 2024, submitted.
3. July 1, 2024, Workplace Violence in IIPP, approved by BOD, staff training complete.
4. Fluoride Variance – KID fluoride variance expires on 12/13/23. Compliance Plan submitted to DDW on 7/10/23. Revised permit application and blending plan submitted to DDW on 12/12/23.
5. **Federal Lead and Copper Rule Revisions: All public water systems to develop and submit a service line material inventory to the SWRCB, DDW by 10/16/24. This inventory includes service line material on both District side of meter, and customer side of meter.**
6. Monthly Water Quality Reporting – Monthly reporting due by the 10th of each month.
7. Water Quality Emergency Notification Plan – annual requirement, filed timely in March 2024
8. Electronic Annual Report for 2023 (eAR) – submitted.
9. Drought and Conservation Report – required per Order No. DDW_HQ_Drought2023-001 issued on 1/1/23. New requirement for monthly data due quarterly. 2024Q1 report was filed timely.
10. 2023 Consumer Confidence Report was complete and included final public notice for Citation 04_07_23C-019
11. PFOA, PFOS and PFAS Chemicals: Impacts of regulations are being monitored through trade groups that KID is affiliated with and Raymond Basin monitoring.
12. SB 552 – status of compliance, must meet Fire Flow requirements by January 2032. Costs to be considered in Master Planning.

13. SB 1020 – Clean Energy, Jobs, and Affordability Act of 2022 – requires 100% of all state agency electricity consumption to be from renewable and carbon neutral sources by 2035.

* Acronyms:
ACWA – Association of California Water Agencies
ACWA JPIA – Association of California Water Agencies Joint Powers Insurance Authority
CSDA – California Special Districts Association
CUEA – California Utilities Emergency Association
DDW – Dept. of Drinking Water
DWR – Dept. of Water Resources
FMWD – Foothill Municipal Water District
KID – Kinneloa Irrigation District
LAFCO – Local Agency Formation Commission of Los Angeles County
PWAG – Public Water Agencies Group
RBMB – Raymond Basin Management Board
SWRCB – State Water Resources Control Board
LCRR – Lead and Copper Rule Revisions

IV. Water Supply Summary as of 8/31/24 for the Watermaster Year 2024-2025

Raymond Basin Groundwater (Acre Feet)		Kinneloa Irrigation District Water Tunnels (Acre Feet)	
1955 Decreed Rights	516	Holly High-Low	0.0
Less Pasadena Subarea 30% Reduction in Water Rights	-154.8	Eucalyptus	0.0
Net Effective Decreed Rights	361.2		
Prior Year Carryover	51.6	Far Mesa	0.0
Leases/Exchanges	0	House	0.0
Prior Year Spreading	372.2	Delores	30.6
Short Term Storage	248.4		
Total Allowable Extractions	1,033.4		
Less Water Extracted YTD This Watermaster Year	-112.7	Year to Date Tunnel Production	16.4
Remaining Allowable Groundwater Extractions through June 2024	920.7	Remaining Estimated Tunnel Production through June 2025	80.0
Total Available Water Supply (Remaining Allowable Groundwater + Remaining Estimated Tunnel Production through June 2024)		1,000.7 Acre Feet	
Less Remaining Forecasted Retail Water Sales through June 2025		-500.00 Acre Feet	
Estimated Surplus Water through June 2025**		500.7 Acre Feet	

Year to Date Water Production for Current Watermaster Year = 143.3 Acre Feet
Year to Date Water Sales for Current Watermaster Year = 121.22 Acre Feet (15.5% loss)

Total Retail Water Sales for Watermaster Year 2023-2024 = 474.8 Acre-Feet
Total Retail Water Sales for Watermaster Year 2022-2023 = 493.2 Acre-Feet

** This is the forecasted surplus water available for sale in the current year and/or carryover to the next Watermaster year which starts on July 1 subject to the carryover limits established by the Raymond Basin Management Board. Regarding the available surplus water, we will maximize the carryover to the next year and deliver the balance of the forecasted surplus water (if any) to the City of Pasadena. *Current Agreement with City of Pasadena for sale of excess groundwater expires June 30, 2025.*